KENWOOD

NTSC COLOR PATTERN GENERATOR

CG-931

PAL COLOR PATTERN GENERATOR

CG-932

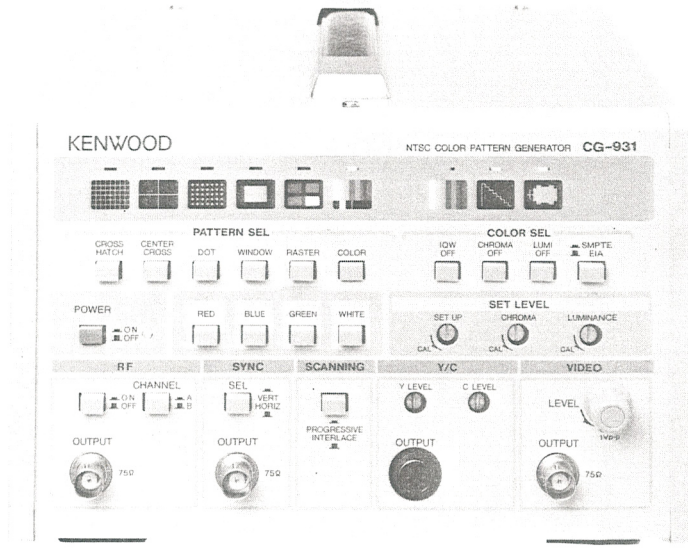
OPTION

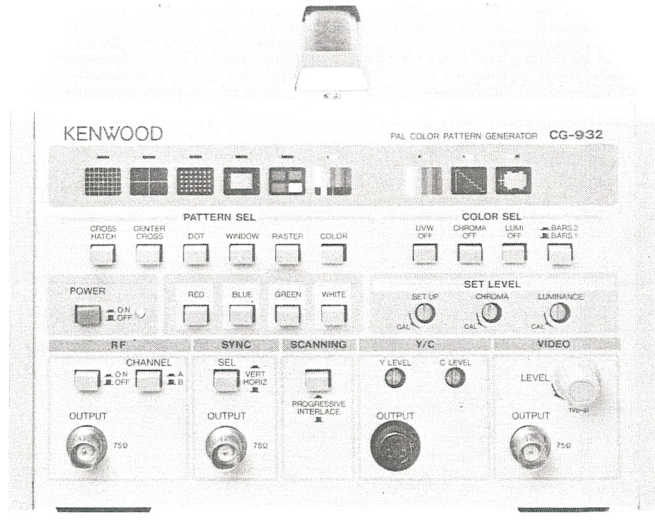
REMOTE CONTROLLER

RT-62

SERVICE MANUAL

KENWOOD CORPORATION





WARNING

The following instructions are for use by qualified personnel only. To avoid electric shock, do not perform any servicing other than contained in the operating instructions unless you are qualified to do so.

CONTENTS

ADJUSTMENT 3
PARTS LIST 6
SCHEMATIC DIAGRAM 11
P.C. BOARD 18

ADJUSTMENT

To obtain the best performance, periodically calibrate the unit. Sometimes, only one mode need be calibrated, while at other times, all modes should be calibrated. When one mode is calibrated, it must be noted that the other modes may be affected. When calibrating all modes, perform the calibration in the specified sequence.
The following calibration required an accurate measuring instrument and an insulated adjusting flat blade screwdriver. If they are not available, contact your dealer. For optimum adjustment, turn the power on and warm up the unit sufficiently (more than 30 minutes) before starting.
Before calibrating the unit check the power supply voltage.

TEST EQUIPMENT REQUIRED

The following instrument or their equivalent should be used for making adjustment.

Test Equipment	Model	Maker
Vector Scope (NTSC)	CV-1250	KENWOOD
Vector Scope (PAL)	CV-1255	KENWOOD
Oscilloscope	CS-6040	KENWOOD
Digital multimeter	45	FLUKE
Frequency Counter	FC-758	KENWOOD

1. Video Sync

Item	Adjustment VR (C)	Procedure
fsc (CG-931)	C17	• Connect the counter with the subcarrier OUT on the rear panel. • Adjust C17 so that the frequency is 3.579545 MHz ±5 Hz
fsc (CG-932)	C12	• Connect the counter with the subcarrier output on the rear panel. • Adjust C12 so that the frequency is 4.43361875 MHz ±6 Hz
f_H (CG-932)	C17	• Adjust C17 so that the direct current voltage between the ground and either of R31 terminals is +2.5 V.

2. Dot Level

Item	Adjustment VR (C)	Procedure
Sink Level (CG-931)	VR12	• Connect VIDEO OUT with the oscilloscope (75 Ω termination). • Adjust VR12 so that the level is 286 mVp-p.
Sink Level (CG-932)	VR12	• Connect VIDEO OUT with the oscilloscope (75 Ω termination). • Adjust VR12 so that the level is 300 mVp-p.
Dot Level	VR13	• Display a crosshatch pattern. • Make the display luster white (100%). • Make the crosshatch level the same as luster white 100%.
Horizontal line interval	VR7	• Display a crosshatch pattern. • Set to the center position in the range where the horizontal line is displayed in the normal position.

ADJUSTMENT

3. Color

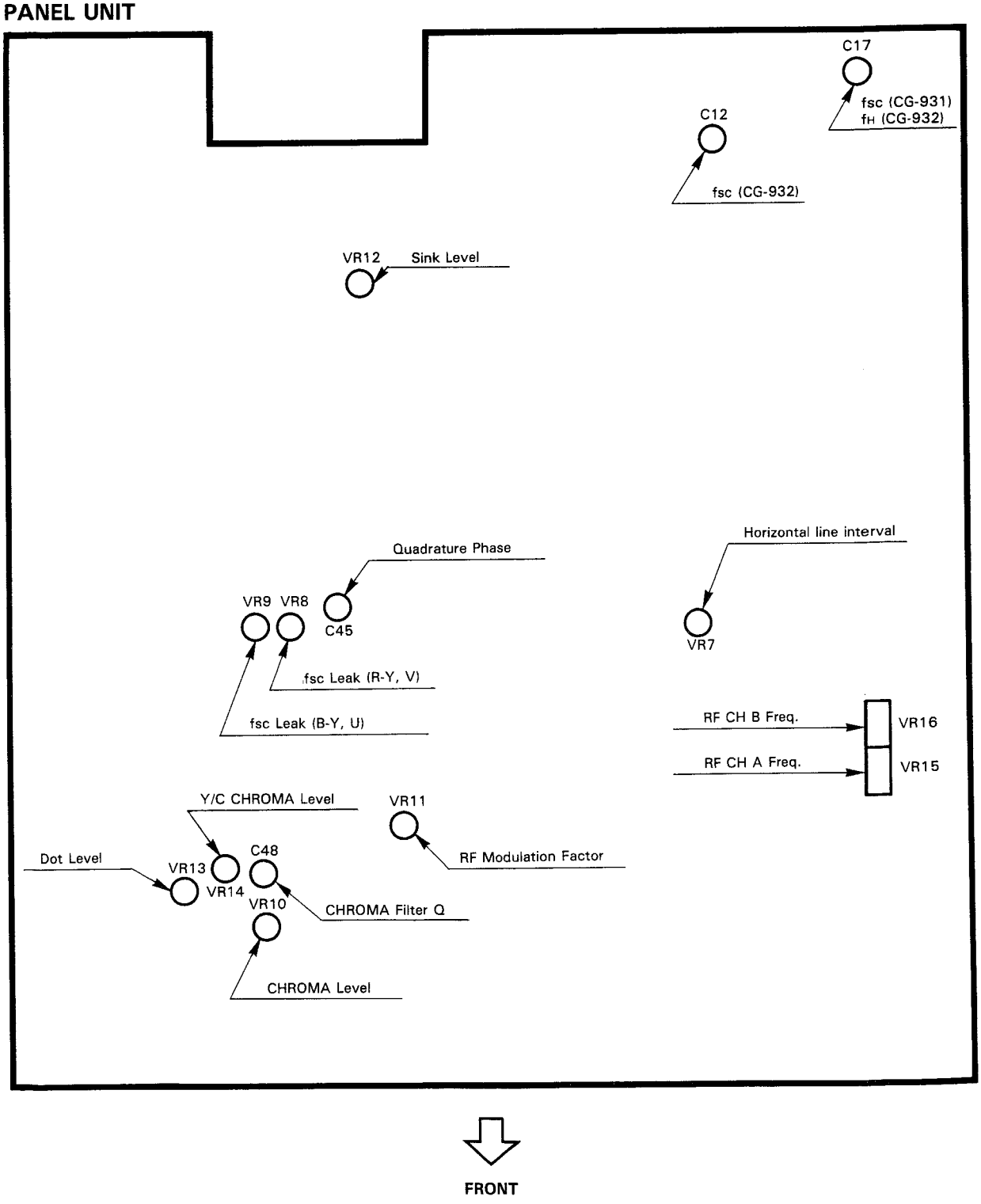
Item	Adjustment VR (C)	Procedure
fsc Leak (R-Y, V)	VR8	• Display a color bar with the luminance off. • Connect VIDEO OUT with the oscilloscope. • Minimize the fsc leak.
fsc Leak (B-Y, U)	VR9	• Same as above.
CHROMA Filter Q	C48 T2	• Display a color bar with the luminance on. • Connect VIDEO OUT with the vector scope. • Adjust so that the luminescent lines between each dot are on one single straight line.
Quadrature Phase	C45	• Display a color bar with the luminance off. • Connect VIDEO OUT with the vector scope. • Make the phases of each dot the same.
CHROMA Level	VR10	• Display a color bar with the luminance off. • Connect VIDEO OUT with the vector scope. • Make the levels of each dot the same.
Y/C CHROMA Level	VR14	• Display a color bar with the luminance off. • Connect the CHROMA OUT on the rear panel with input A on the rear panel of the vector scope. • Connect VIDEO OUT with the input B on the rear panel of the vector scope. • Set the rear panel of the vector scope to (INPUT A, ϕB). • Adjust the levels of each dot.

4. RF

Item	Adjustment VR (C)	Procedure
RF CH A Freq.	VR15	• Display a color bar with the luminance and the chroma off. • Turn RF on. • Connect the counter with RF OUT. • Adjust VR15 so that the frequency is that in the country where the unit is used.
RF CH B Freq.	VR16	• Same as above.
RF Modulation Factor	VR11	• Luster white. • Turn RF on. • Connect CH1 of the oscilloscope with RF OUT. • Connect CH2 of the oscilloscope with SYNC OUT. • Set the oscilloscope to (Display CH1, synchronization CH2). • Adjust VR11 so that the 100% level of luster white is equivalent to 12.5% against the sink level.

ADJUSTMENT

PANEL UNIT



PARTS LIST

CG-931

Y77-1250-00

REF.NO	PARTS NO	NAME & DESCRIPTION
	A01-1229-02	CASE,TOP
	A01-1230-02	CASE,BOTTOM
	A13-0948-13	FRAME,SIDES
	A21-1175-12	DECORATIVE PANEL
	A22-0883-12	SUB PANEL
	A83-0006-02	REAR PANEL
	B01-0705-03	SIDE ESCUTCHEON
	B42-1819-04	LABEL;CH2 CH3
	B42-1820-04	LABEL;CH5 CH6
	B42-3721-13	SERIAL NO. PLATE
	B63-0013-00	INSTRUCTION MANUAL;ENG./JAP.
	E18-0365-05	AC SELECTOR WITH 6X30MM FUSE
	E30-1818-05	JIS POWER CORD SET
	E30-1820-05	UL/CSA POWER CORD SET
	E38-0422-08	WIRE ASS'Y;P1
	E38-0423-08	WIRE ASS'Y;CN2
	E38-0424-08	WIRE ASS'Y;CN3
	E38-0425-08	WIRE ASS'Y;CN4
	E38-0426-08	WIRE ASS'Y;CN5
	E38-0427-08	WIRE ASS'Y;CN6
	E38-0428-08	WIRE ASS'Y;CN7
	E38-0429-08	WIRE ASS'Y;CN9
	E38-0430-08	WIRE ASS'Y;CN10
	E38-0432-18	WIRE ASS'Y;CN13
	E38-0433-08	WIRE ASS'Y;CN14
	E38-0434-08	WIRE ASS'Y;CN15
	E38-0435-08	WIRE ASS'Y;CN16
	E38-0436-08	WIRE ASS'Y;CN17
	E38-0439-08	WIRE ASS'Y;CN12
	E38-1431-08	WIRE ASS'Y;CN11
	F15-0703-04	BLIND PLATE
	H10-2851-02	FOAMED STYRENE PAD,FRONT
	H10-2852-02	FOAMED STYRENE PAD,REAR
	H20-1709-14	VINYL COVER
	H53-0012-14	CARTON BOX
	J02-0363-04	RUBBER FOOT,REAR
	J02-0525-13	RUBBER FOOT,FRONT
	J02-0528-04	TILT STAND
	J19-1676-04	HOLDER,LED
	J21-4712-04	BRACKET;FOR VR
	K01-0544-05	HANDLE
	K21-0915-04	KNOB
	K27-0351-04	PUSH BUTTON;GRAY
	K27-0506-04	PUSH BUTTON;ORANGE
	W02-2101-08	MAIN UNIT
	W02-2102-08	PANEL UNIT
	W03-2309-05	ACCESSORY CORD CA-41
J1	E04-0259-05	BNC RECEPTACLE
J2	E04-0259-05	BNC RECEPTACLE
J3	E04-0259-05	BNC RECEPTACLE
J4	E29-0550-08	PIN CONNECTOR
J5	E04-0259-05	BNC RECEPTACLE
J6	E04-0259-05	BNC RECEPTACLE
J7	E04-0259-05	BNC RECEPTACLE
Q1	2SD721	
R13	RN14BK2E2401F	RES. METAL FILM 2.4K 1% 1/4W
R14	RN14BK2E3601F	RES. METAL FILM 3.6K 1% 1/4W
R15	RN14BK2E2401F	RES. METAL FILM 2.4K 1% 1/4W
R16	RN14BK2E2401F	RES. METAL FILM 2.4K 1% 1/4W
R17	RN14BK2E2401F	RES. METAL FILM 2.4K 1% 1/4W
R18	RN14BK2E2401F	RES. METAL FILM 2.4K 1% 1/4W
R19	RN14BK2E4990F	RES. METAL FILM 499 1% 1/4W
R20	RN14BK2E6800F	RES. METAL FILM 680 1% 1/4W
R21	RN14BK2E4990F	RES. METAL FILM 499 1% 1/4W
R22	RN14BK2E6800F	RES. METAL FILM 680 1% 1/4W
R23	RN14BK2E7150F	RES. METAL FILM 715 1% 1/4W
R24	RN14BK2E3740F	RES. METAL FILM 374 1% 1/4W
S1	S40-2532-05	POWER SW
T1	L01-9974-08	POWER TRANSFORMER
VR1	R29-2502-08	V.R. 5K
VR2	R29-2502-08	V.R. 5K
VR3	R29-2502-08	V.R. 5K
VR4	R29-1511-08	V.R. 1K
VR5	R29-1511-08	V.R. 1K
VR6	R29-1511-08	V.R. 1K

CG-932

Y77-1260-00

REF.NO	PARTS NO	NAME & DESCRIPTION
	A01-1229-02	CASE,TOP
	A01-1230-02	CASE,BOTTOM
	A13-0948-13	FRAME,SIDES
	A21-1172-12	DECORATIVE PANEL
	A22-0883-12	SUB PANEL
	A83-0008-02	REAR PANEL
	B01-0715-03	SIDE ESCUTCHEON
	B42-1830-04	LABEL;CH3 CH4
	B42-1831-04	LABEL;CHA CHB
	B42-1832-14	LABEL;CH1 CH2
	B42-1833-04	LABEL;CH2 CH3
	B42-3721-13	SERIAL NO. PLATE
	B42-3772-04	LABEL;CH71 CH77
	E18-0365-05	AC SELECTOR WITH 6X30MM FUSE
	E30-1644-15	BS POWER CORD
	E30-1818-05	JIS POWER CORD SET
	E30-1819-05	CEE POWER CORD SET
	E30-1821-05	SAA POWER CORD SET
	E38-0423-08	WIRE ASS'Y;CN2
	E38-0424-08	WIRE ASS'Y;CN3
	E38-0425-08	WIRE ASS'Y;CN4
	E38-0426-08	WIRE ASS'Y;CN5
	E38-0427-08	WIRE ASS'Y;CN6
	E38-0428-08	WIRE ASS'Y;CN7
	E38-0429-08	WIRE ASS'Y;CN9
	E38-0430-08	WIRE ASS'Y;CN10
	E38-0431-08	WIRE ASS'Y;CN11
	E38-0432-08	WIRE ASS'Y;CN13
	E38-0433-08	WIRE ASS'Y;CN14
	E38-0434-08	WIRE ASS'Y;CN15
	E38-0435-08	WIRE ASS'Y;CN16
	E38-0436-08	WIRE ASS'Y;CN17
	E38-0438-08	WIRE ASS'Y;P1
	E38-0439-08	WIRE ASS'Y;CN12
	F15-0703-04	BLIND PLATE
	H10-2851-02	FOAMED STYRENE PAD,FRONT
	H10-2852-02	FOAMED STYRENE PAD,REAR
	H51-1719-14	VINYL COVER
	H53-0013-14	CARTON BOX
	J02-0363-04	RUBBER FOOT,REAR
	J02-0525-13	RUBBER FOOT,FRONT
	J02-0528-04	TILT STAND
	J19-1676-04	HOLDER,LED
	J21-4712-04	BRACKET;FOR VR
	K01-0410-05	HANDLE
	K21-0915-04	KNOB
	K27-0351-04	PUSH BUTTON;GRAY
	K27-0506-04	PUSH BUTTON;ORANGE
	W02-2102-08	PANEL UNIT
	W02-2103-08	MAIN UNIT
	W03-2309-05	ACCESSORY CORD CA-41
J1	E04-0259-05	BNC RECEPTACLE
J2	E04-0259-05	BNC RECEPTACLE
J3	E04-0259-05	BNC RECEPTACLE
J4	E29-0550-08	PIN CONNECTOR
J5	E04-0259-05	BNC RECEPTACLE
J6	E04-0259-05	BNC RECEPTACLE
J7	E04-0259-05	BNC RECEPTACLE
Q1	2SD721	
R15	RN14BK2E2401F	RES. METAL FILM 2.4K 1% 1/4W
R16	RN14BK2E2401F	RES. METAL FILM 2.4K 1% 1/4W
R17	RN14BK2E2401F	RES. METAL FILM 2.4K 1% 1/4W
R18	RN14BK2E2401F	RES. METAL FILM 2.4K 1% 1/4W
R19	RN14BK2E4990F	RES. METAL FILM 499 1% 1/4W
R20	RN14BK2E6800F	RES. METAL FILM 680 1% 1/4W
R21	RN14BK2E4990F	RES. METAL FILM 499 1% 1/4W
R22	RN14BK2E6800F	RES. METAL FILM 680 1% 1/4W
R23	RN14BK2E7150F	RES. METAL FILM 715 1% 1/4W
R24	RN14BK2E3740F	RES. METAL FILM 374 1% 1/4W
S1	S40-2532-05	POWER SW
T1	L01-9974-08	POWER TRANSFORMER
VR1	R29-2502-08	V.R. 5K
VR2	R29-2502-08	V.R. 5K
VR3	R29-2502-08	V.R. 5K
VR4	R29-1511-08	V.R. 1K
VR5	R29-1511-08	V.R. 1K
VR6	R29-1511-08	V.R. 1K

PARTS LIST

CG-931 MAIN UNIT

W02-2101-08

REF.NO	PARTS NO	NAME & DESCRIPTION			
	F01-0890-08	HEAT SINK			
	W02-2003-05	RF CONVERTER			
C1	CE04EW1E102M	CAP. ELECTRO	1000	20%	25V
C2	CE04EW1C470M	CAP. ELECTRO	47	20%	16V
C3	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C4	CE04EW1C471M	CAP. ELECTRO	470	20%	16V
C5	CE04EW1C470M	CAP. ELECTRO	47	20%	16V
C6	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C7	CE04EW1E102M	CAP. ELECTRO	1000	20%	25V
C8	CE04EW1C470M	CAP. ELECTRO	47	20%	16V
C9	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C14	CM93BD2A220J	CAP. MICA	22P	5%	100V
C17	C05-0482-08	CAP. TRIMMER	40P		
C18	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C19	NO USE				
C20	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C21	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C22	CM93BD2A100J	CAP. MICA	10P	5%	100V
C23	CQ92M1H473K	CAP. MYLAR	0.047	10%	50V
C24	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C25	NO USE				
C26	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C27	NO USE				
C28	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C29	NO USE				
C30	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C31	NO USE				
C32	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C33	NO USE				
C34	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C41	CQ92M1H104K	CAP. MYLAR	0.1	10%	50V
C42	CQ92M1H104K	CAP. MYLAR	0.1	10%	50V
C43	CQ92M1H104K	CAP. MYLAR	0.1	10%	50V
C44	CM93BD2A680J	CAP. MICA	68P	5%	100V
C45	C05-0482-08	CAP. TRIMMER	40P		
C46	CE04EW1C220M	CAP. ELECTRO	22	20%	16V
C47	CM93BD2A820J	CAP. MICA	82P	5%	100V
C48	C05-0482-08	CAP. TRIMMER	40P		
C49	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C52	CE04EW1E101M	CAP. ELECTRO	100	20%	25V
C53	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C54	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C55	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C56	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C57	CC45CH1H330J	CAP. CERAMIC	33P	5%	50V
C60	CE04EW1C471M	CAP. ELECTRO	470	20%	16V
C61	CE04EW1C471M	CAP. ELECTRO	470	20%	16V
C62	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C63	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C64	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C65	CQ92M1H104K	CAP. MYLAR	0.1	10%	50V
C66	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C67	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C68	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C69	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C70	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C71	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C72	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C73	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C74	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C75	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C76	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C77	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C78	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C79	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C80	CK45B1H102K	CAP. CERAMIC	1000P	10%	50V
C81	CE04EW1V470M	CAP. ELECTRO	47	20%	35V
C82	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C83	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C100	CC45CH1H330J	CAP. CERAMIC	33P	5%	50V
C101	NO USE				
C102	CM93BD2A820J	CAP. MICA	82P	5%	100V
C105	CK45B1H222K	CAP. CERAMIC	2200P	10%	50
C106	CK45B1H222K	CAP. CERAMIC	2200P	10%	50V
C107	CK45B1H222K	CAP. CERAMIC	2200P	10%	50V
C108	CQ92M1H472K	CAP. MYLAR	4700P	10%	50V
C109	CK45B1H222K	CAP. CERAMIC	2200P	10%	50V
C110	CK45B1H222K	CAP. CERAMIC	2200P	10%	50V
C111	CK45B1H222K	CAP. CERAMIC	2200P	10%	50V
C112	CK45B1H222K	CAP. CERAMIC	2200P	10%	50V
C130	CK45B1H102K	CAP. CERAMIC	1000P	10%	50V
C131	CC45SL1H471J	CAP. CERAMIC	470P	5%	50V
C150	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C151	CC45CH1H220J	CAP. CERAMIC	22P	5%	50V
CN2	E40-1515-05	PIN CONNECTOR	15P		
CN3	E40-1515-05	PIN CONNECTOR	15P		
CN4	E40-0915-05	PIN CONNECTOR	9P		
CN5	E40-3362-05	PIN CONNECTOR	3P		
CN6	E40-3362-05	PIN CONNECTOR	3P		
CN7	E40-3362-05	PIN CONNECTOR	3P		
CN8	NO USE				
CN9	E40-3361-05	PIN CONNECTOR	2P		
CN10	E40-3361-05	PIN CONNECTOR	2P		
CN11	E40-3363-05	PIN CONNECTOR	4P		
CN12	E40-3361-05	PIN CONNECTOR	2P		
CN13	E40-3361-05	PIN CONNECTOR	2P		
CN14	E40-3361-05	PIN CONNECTOR	2P		
CN15	NO USE				
CN16	E40-3365-05	PIN CONNECTOR	6P		
CN17	E40-3362-05	PIN CONNECTOR	3P		
D1	U05B	DIODE			
D2	U05B	DIODE			
D3	U05B	DIODE			
D4	U05B	DIODE			
D5	10D1	DIODE			
D6	10D1	DIODE			
D7	10D1	DIODE			
D8	10D1	DIODE			
D9	10D1	DIODE			
D10	10D1	DIODE			
D11	10D1	DIODE			
D12	10D1	DIODE			
D13	CC45CH1H680J	CAP. CERAMIC	68P	5%	50V
D14	NO USE				
D15	1S1588	DIODE			
D16	1S1588	DIODE			
D17	1S1588	DIODE			
D18	1S1588	DIODE			
D19	1S1588	DIODE			
D20	1S1588	DIODE			
D21	1S1588	DIODE			
D22	1S1588	DIODE			
D23	1S1588	DIODE			
D24	HZ27-3	DIODE, ZENER	27.9V		
D25	MA700	DIODE			
D26	MA700	DIODE			
L2	L39-0536-08	COIL			
L3	NO USE				
L4	L39-0537-08	COIL			
L5	L39-0538-08	COIL			
Q2	2SC1815(Y)	TR. SI, NPN			
Q5	2SC1815(Y)	TR. SI, NPN			
Q6	2SC1815(Y)	TR. SI, NPN			
Q7	2SA1015(Y)	TR. SI, PNP			
Q8	2SA1015(Y)	TR. SI, PNP			
Q9	2SC1815(Y)	TR. SI, NPN			
Q10	2SC1815(Y)	TR. SI, NPN			
Q11	2SC1815(Y)	TR. SI, NPN			
Q14	2SA1015(Y)	TR. SI, PNP			
Q15	2SA1015(Y)	TR. SI, PNP			
Q16	2SA1015(Y)	TR. SI, PNP			
Q17	2SC3419(Y)	TR. SI, NPN			
Q18	2SC1815(Y)	TR. SI, NPN			
Q19	2SA1356(Y)	TR. SI, PNP			
Q20	2SA1015(Y)	TR. SI, PNP			
Q21	2SC3419(Y)	TR. SI, NPN			
Q22	2SC1815(Y)	TR. SI, NPN			
Q23	2SA1356(Y)	TR. SI, PNP			
Q24	2SA1015(Y)	TR. SI, PNP			
Q25	2SC3419(Y)	TR. SI, NPN			
Q26	2SC1815(Y)	TR. SI, NPN			
Q27	2SA1356(Y)	TR. SI, PNP			
Q28	2SC1815(Y)	TR. SI, NPN			
Q35	2SA1015(Y)	TR. SI, PNP			
Q36	2SC1815(Y)	TR. SI, NPN			
Q37	2SC1815(Y)	TR. SI, NPN			
Q38	2SC1815(Y)	TR. SI, NPN			
R11	RD14BB2E472J	RES. CARBON	4.7K	5%	1/4W
R12	RD14BB2E181J	RES. CARBON	180	5%	1/4W
R38	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R39	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R40	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R41	RN14BK2E4701F	RES. METAL FILM	4.7K	1%	1/4W
R42	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R43	RN14BK2E4990F	RES. METAL FILM	499	1%	1/4W
R44	RN14BK2E1300F	RES. METAL FILM	130	1%	1/4W
R45	NO USE				
R46	RN14BK2E36R0F	RES. METAL FILM	36.0	1%	1/4W
R47	RN14BK2E1600F	RES. METAL FILM	160	1%	1/4W
R48	RN14BK2E51R0F	RES. METAL FILM	51.0	1%	1/4W
R49	RN14BK2E1600F	RES. METAL FILM	160	1%	1/4W
R50	RN14BK2E36R0F	RES. METAL FILM	36.0	1%	1/4W
R51	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R52	RN14BK2E51R0F	RES. METAL FILM	51.0	1%	1/4W
R53	NO USE				
R54	RN14BK2E8201F	RES. METAL FILM	8.2K	1%	1/4W
R55	RN14BK2E7501F	RES. METAL FILM	7.5K	1%	1/4W
R56	RN14BK2E1501F	RES. METAL FILM	1.5K	1%	1/4W
R57	NO USE				
R58	RN14BK2E3901F	RES. METAL FILM	3.9K	1%	1/4W
R59	RN14BK2E9091F	RES. METAL FILM	9.09K	1%	1/4W
R60	NO USE				
R61	RN14BK2E4421F	RES. METAL FILM	4.42K	1%	1/4W
R62	RN14BK2E2001F	RES. METAL FILM	2K	1%	1/4W
R63	RN14BK2E8200F	RES. METAL FILM	820	1%	1/4W
R64	RN14BK2E8200F	RES. METAL FILM	820	1%	1/4W
R65	RN14BK2E8200F	RES. METAL FILM	820	1%	1/4W
R66	RN14BK2E8200F	RES. METAL FILM	820	1%	1/4W
R67	RN14BK2E8200F	RES. METAL FILM	820	1%	1/4W
R68	RN14BK2E4701F	RES. METAL FILM	4.7K	1%	1/4W
R69	RN14BK2E4701F	RES. METAL FILM	4.7K	1%	1/4W
R70	RN14BK2E4701F	RES. METAL FILM	4.7K	1%	1/4W
R71	RN14BK2E2201F	RES. METAL FILM	2.2K	1%	1/4W
R72	RN14BK2E8200F	RES. METAL FILM	820	1%	1/4W
R73	RN14BK2E4701F	RES. METAL FILM	4.7K	1%	1/4W
R90	RN14BK2E7501F	RES. METAL FILM	7.5K	1%	1/4W
R91	RN14BK2E1600F	RES. METAL FILM	160	1%	1/4W
R92	RN14BK2E8251F	RES. METAL FILM	8.25K	1%	1/4W
R93	RN14BK2E2200F	RES. METAL FILM	220	1%	1/4W
R94	RN14BK2E5492F	RES. METAL FILM	54.9K	1%	1/4W
R95	RN14BK2E8061F	RES. METAL FILM	8.06K	1%	1/4W
R98	RN14BK2E1102F	RES. METAL FILM	11K	1%	1/4W
R99	RN14BK2E1600F	RES. METAL FILM	160	1%	1/4W
R100	RN14BK2E1502F	RES. METAL FILM	15K	1%	1/4W
R101	RN14BK2E2400F	RES. METAL FILM	240	1%	1/4W
R102	RN14BK2E3012F	RES. METAL FILM	30.1K	1%	1/4W
R103	RN14BK2E1002F	RES. METAL FILM	10K	1%	1/4W
R104	RN14BK2E2202F	RES. METAL FILM	22K	1%	1/4W
R105	RN14BK2E4701F	RES. METAL FILM	4.7K	1%	1/4W
R106	RN14BK2E2702F	RES. METAL FILM	27K	1%	1/4W
R107	RN14BK2E6041F	RES. METAL FILM	6.04K	1%	1/4W
R108	RN14BK2E4702F	RES. METAL FILM	47K	1%	1/4W
R109	RN14BK2E5361F	RES. METAL FILM	5.36K	1%	1/4W
R110	RN14BK2E3602F	RES. METAL FILM	36K	1%	1/4W
R111	RN14BK2E7501F	RES. METAL FILM	7.5K	1%	1/4W
R112	RN14BK2E2702F	RES. METAL FILM	27K	1%	1/4W
R113	RN14BK2E3321F	RES. METAL FILM	3.32K	1%	1/4W
R114	RN14BK2E4702F	RES. METAL FILM	47K	1%	1/4W
R115	RN14BK2E3601F	RES. METAL FILM	3.6K	1%	1/4W
R116	RN14BK2E5621F	RES. METAL FILM	5.62K	1%	1/4W
R117	RN14BK2E1200J	RES. METAL FILM	120	5%	1/4W
R118	RN14BK2E1002F	RES. METAL FILM	10K	1%	1/4W
R119	RN14BK2E4701F	RES. METAL FILM	4.7K	1%	1/4W
R120	NO USE				
R121	RN14BK2E3601F	RES. METAL FILM	3.6K	1%	1/4W
R122	RN14BK2E3302F	RES. METAL FILM	33K	1%	1/4W
R123	RN14BK2E5601F	RES. METAL FILM	5.6K	1%	1/4W
R124	RN14BK2E2201F	RES. METAL FILM	2.2K	1%	1/4W
R125	RN14BK2E4420F	RES. METAL FILM	442	1%	1/4W
R128	RN14BK2E2201F	RES. METAL FILM	2.2K	1%	1/4W
R129	RN14BK2E2201F	RES. METAL FILM	2.2K	1%	1/4W
R130	RN14BK2E4702F	RES. METAL FILM	47K	1%	1/4W
R131	RN14BK2E2201F	RES. METAL FILM	2.2K	1%	1/4W
R132	RN14BK2E2201F	RES. METAL FILM	2.2K	1%	1/4W
R133	RN14BK2E4702F	RES. METAL FILM	47K	1%	1/4W
R134	RN14BK2E1001F	RES. METAL FILM	1K	1%	1/4W
R135	RN14BK2E1001F	RES. METAL FILM	1K	1%	1/4W
R136	RN14BK2E2201F	RES. METAL FILM	2.2K	1%	1/4W
R137	RN14BK2E2201F	RES. METAL FILM	2.2K	1%	1/4W
R138	RN14BK2E1001F	RES. METAL FILM	1K	1%	1/4W
R139	RN14BK2E2701F	RES. METAL FILM	2.7K	1%	1/4W
R140	RN14BK2E1501F	RES. METAL FILM	1.5K	1%	1/4W
R141	RN14BK2E2201F	RES. METAL FILM	2.2K	1%	1/4W
R142	RN14BK2E1501F	RES. METAL FILM	1.5K	1%	1/4W
R143	RN14BK2E2201F	RES. METAL FILM	2.2K	1%	1/4W
R144	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R145	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R146	RD14BB2E121J	RES. CARBON	120	5%	1/4W
R147	RD14BB2E332J	RES. CARBON	3.3K	5%	1/4W
R148	RD14BB2E152J	RES. CARBON	1.5K	5%	1/4W
R149	RD14BB2E101J	RES. CARBON	100	5%	1/4W
R150	RD14BB2E681J	RES. CARBON	680	5%	1/4W
R151	RD14BB2E622J	RES. CARBON	6.2K	5%	1/4W
R152	RD14BB2E682J	RES. CARBON	6.8K	5%	1/4W
R153	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R157	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R158	RD14BB2E563J	RES. CARBON	56K	5%	1/4W
R159	RD14BB2E152J	RES. CARBON	1.5K	5%	1/4W
R160	RD14BB2E101J	RES. CARBON	100	5%	1/4W
R161	RN14BK2E1331F	RES. METAL FILM	1.33K	1%	1/4W
R162	RN14BK2E6800F	RES. METAL FILM	680	1%	1/4W
R163	RD14BB2E622J	RES. CARBON	6.2K	5%	1/4W
R164	RN14BK2E6801F	RES. METAL FILM	6.8K	1%	1/4W
R165	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R166	NO USE				
R167	RD14BB2E221J	RES. CARBON	220	5%	1/4W
R171	RN14BK2E2400F	RES. METAL FILM	240	1%	1/4W
R172	RN14BK2E6800F	RES. METAL FILM	680	1%	1/4W
R173	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R174	RD14BB2E563J	RES. CARBON	56K	5%	1/4W
R175	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R176	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R177	RD14BB2E121J	RES. CARBON	120	5%	1/4W
R178	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R179	RD14BB2E223J	RES. CARBON	22K	5%	1/4W
R180	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R181	RD14BB2E472J	RES. CARBON	4.7K	5%	1/4W
R182	RN14BK2E2700F	RES. METAL FILM	270	1%	1/4W
R183	RN14BK2E8200F	RES. METAL FILM	820	1%	1/4W
R184	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R185	RD14BB2E472J	RES. CARBON	4.7K	5%	1/4W
R186	RD14BB2E101J	RES. CARBON	100	5%	1/4W
R187	RD14BB2E101J	RES. CARBON	100	5%	1/4W
R188	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R189	RD14BB2E472J	RES. CARBON	4.7K	5%	1/4W
R190	RD14BB2E101J	RES. CARBON	100	5%	1/4W
R191	RD14BB2E152J	RES. CARBON	1.5K	5%	1/4W
R192	RD14BB2E151J	RES. CARBON	150	5%	1/4W
R193	RD14BB2E151J	RES. CARBON	150	5%	1/4W
R194	RD14BB2E151J	RES. CARBON	150	5%	1/4W
R195	RD14BB2E151J	RES. CARBON	150	5%	1/4W
R196	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R197	RD14BB2E472J	RES. CARBON	4.7K	5%	1/4W
R198	RD14BB2E101J	RES. CARBON	100	5%	1/4W
R199	RD14BB2E152J	RES. CARBON	1.5K	5%	1/4W
R200	RD14BB2E101J	RES. CARBON	100	5%	1/4W
R201	RD14BB2E151J	RES. CARBON	150	5%	1/4W
R202	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R203	RD14BB2E472J	RES. CARBON	4.7K	5%	1/4W
R204	RD14BB2E101J	RES. CARBON	100	5%	1/4W
R205	RD14BB2E152J	RES. CARBON	1.5K	5%	1/4W
R206	RD14BB2E151J	RES. CARBON	150	5%	1/4W
R207	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R208	RD14BB2E472J	RES. CARBON	4.7K	5%	1/4W
R209	RD14BB2E101J	RES. CARBON	100	5%	1/4W
R210	RD14BB2E152J	RES. CARBON	1.5K	5%	1/4W
R211	RD14BB2E101J	RES. CARBON	100	5%	1/4W
R212	RD14BB2E151J	RES. CARBON	150	5%	1/4W
R213	RD14BB2E151J	RES. CARBON	150	5%	1/4W
R214	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R215	RD14BB2E472J	RES. CARBON	4.7K	5%	1/4W

PARTS LIST

REF.NO	PARTS NO	NAME & DESCRIPTION			
R216	RD14BB2E101J	RES. CARBON	100	5%	1/4W
R217	RD14BB2E152J	RES. CARBON	1.5K	5%	1/4W
R218	RD14BB2E151J	RES. CARBON	150	5%	1/4W
R219	RD14BB2E151J	RES. CARBON	150	5%	1/4W
R220	RD14BB2E223J	RES. CARBON	22K	5%	1/4W
R221	RD14BB2E473J	RES. CARBON	47K	5%	1/4W
R222	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R223	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R224	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R225	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R226	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R249	RN14BK2E9762F	RES. METAL FILM	97.6K	1%	1/4W
R250	RD14BB2E152J	RES. CARBON	1.5K	5%	1/4W
R251	RD14BB2E510J	RES. CARBON	51	5%	1/4W
R300	RD14BB2E153J	RES. CARBON	15K	5%	1/4W
RM1	R90-1116-08	RES. NETWORK	8X10K		
RM2	R90-1116-08	RES. NETWORK	8X10K		
T2	L37-0052-05	MATCHING COIL			
U1	MC7812CT	IC,POSITIVE VOLTAGE REGULATORS			
U2	MC7912CT	IC,NEGATIVE VOLTAGE REGULATORS			
U3	TA78L005P	IC,3-TERMINAL REGULATOR			
U4	CXD1217M	IC,SYNC. SIGNAL GENERATOR			
U5	TC74HC161AN	IC,SYNC. 4-BIT BINARY COUNTER			
U6	TC74HC04AN	IC,HEX INVERTER			
U7	TC74HC00AN	IC,QUAD 2-INPUT NAND GATE			
U8	TC74HC74AN	IC,DUAL D-F.F. WITH PR&CLR			
U9	TC74HC161AN	IC,SYNC. 4-BIT BINARY COUNTER			
U10	TC74HC393AN	IC,DUAL BINARY COUNTER			
U11	TC74HC393AN	IC,DUAL BINARY COUNTER			
U12	T93-0759-08	IC,PROGRAMMED ROM			
U13	NO USE				
U14	T93-0760-08	IC,PROGRAMMED ROM			
U15	HD74HC93PN	IC,4-BIT BINARY COUNTER			
U16	T93-0762-08	IC,PROGRAMMED ROM			
U17	NO USE				
U18	TC74HC04AN	IC,HEX INVERTER			
U19	TC74HC123AN	IC,DUAL MONO. MULTIVIB.			
U20	TC74HC74AN	IC,DUAL D-F.F. WITH PR&CLR			
U21	T93-0761-08	IC,PROGRAMMED ROM			
U22	TC74HC32AN	IC,QUAD 2-INPUT OR GATE			
U23	TC74HC32AN	IC,QUAD 2-INPUT OR GATE			
U24	SN74LS06N	IC,HEX INVERTERS			
U25	SN74LS06N	IC,HEX INVERTERS			
U26	MC1496P	IC,BALANCED MODEM			
U27	MC1496P	IC,BALANCED MODEM			
U30	SN74LS138N	IC,3-8 DECORD./DE-MPX			
U31	SN74LS06N	IC,HEX INVERTERS			
U32	SN74LS08N	IC,QUAD 2-INPUT AND GATE			
U33	SN74LS138N	IC,3-8 DECORD./DE-MPX			
VR7	R29-3512-08	RES. SEMI FIXED 10K			
VR8	R29-5503-08	RES. SEMI FIXED 220K			
VR9	R29-5503-08	RES. SEMI FIXED 220K			
VR10	R29-1512-08	RES. SEMI FIXED 4.7K			
VR11	R29-1512-08	RES. SEMI FIXED 4.7K			
VR12	R29-1513-08	RES. SEMI FIXED 1K			
VR13	R29-1514-08	RES. SEMI FIXED 3K			
VR14	R29-1512-08	RES. SEMI FIXED 4.7K			
VR15	R29-5504-08	RES. SEMI FIXED 100K			
VR16	R29-5504-08	RES. SEMI FIXED 100K			
X1	L77-1060-05	CRYSTAL RESONATOR(14.31818MHZ)			

CG-932 MAIN UNIT

W02-2103-08

REF.NO	PARTS NO	NAME & DESCRIPTION			
	F01-0890-08	HEAT SINK			
	W02-2002-05	RF CONVERTER			
C1	CE04EW1E102M	CAP. ELECTRO	1000	20%	25V
C2	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C3	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C4	CE04EW1C471M	CAP. ELECTRO	470	20%	16V
C5	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C6	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C7	CE04EW1E102M	CAP. ELECTRO	1000	20%	25V
C8	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C9	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C10	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C11	NO USE				
C12	C05-0482-08	CAP. TRIMMER	40P		
C13	CC45CH1H470J	CAP. CERAMIC	47P	5%	50V
C14	CM93BD2A220J	CAP. MICA	22P	5%	100V
C15	CK45B1H102K	CAP. CERAMIC	1000P	10%	50V
C16	CK45B1H102K	CAP. CERAMIC	1000P	10%	50V
C17	C05-0482-08	CAP. TRIMMER	40P		
C18	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C19	NO USE				
C20	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C21	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C22	CM93BD2A100J	CAP. MICA	10P	5%	100V
C23	CQ92M1H473K	CAP. MYLAR	0.047	10%	50V
C24	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C25	NO USE				
C26	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C27	NO USE				
C28	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C29	NO USE				
C30	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C31	NO USE				
C32	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C33	NO USE				
C34	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C40	CQ92M1H104K	CAP. MYLAR	0.1	10%	50V
C41	CQ92M1H104K	CAP. MYLAR	0.1	10%	50V
C42	CQ92M1H104K	CAP. MYLAR	0.1	10%	50V
C43	CQ92M1H104K	CAP. MYLAR	0.1	10%	50V
C44	CM93BD2A680J	CAP. MICA	68P	5%	100V
C45	C05-0482-08	CAP. TRIMMER	40P		
C46	CE04EW1C220M	CAP. ELECTRO	22	20%	16V
C47	CM93BD2A820J	CAP. MICA	82P	5%	100V
C48	C05-0482-08	CAP. TRIMMER	40P		
C49	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C52	CE04EW1E101M	CAP. ELECTRO	100	20%	25V
C53	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C54	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C55	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C56	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C57	CC45CH1H330J	CAP. CERAMIC	33P	5%	50V
C60	CE04EW1C471M	CAP. ELECTRO	470	20%	16V
C61	CE04EW1C471M	CAP. ELECTRO	470	20%	16V
C62	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C63	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C64	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C65	CQ92M1H104K	CAP. MYLAR	0.1	10%	50V
C66	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C67	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C68	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C69	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C70	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C71	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C72	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C73	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C74	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C75	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C76	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C77	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C78	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C79	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C80	CK45B1H102K	CAP. CERAMIC	1000P	10%	50V
C81	CE04EW1V470M	CAP. ELECTRO	47	20%	35V
C82	CK45F1H103Z	CAP. CERAMIC	0.01		50V
C83	CE04EW1C100M	CAP. ELECTRO	10	20%	16V

PARTS LIST

REF.NO	PARTS NO	NAME & DESCRIPTION			
C100	CC45CH1H330J	CAP. CERAMIC	33P	5%	50V
C101	NO USE				
C102	CC45SL1H101J	CAP. CERAMIC	100P	5%	50V
C105	CK45B1H222K	CAP. CERAMIC	2200P	10%	50V
C106	CK45B1H222K	CAP. CERAMIC	2200P	10%	50V
C107	CK45B1H222K	CAP. CERAMIC	2200P	10%	50V
C108	CK45B1H472K	CAP. CERAMIC	4700P	10%	50V
C109	CK45B1H222K	CAP. CERAMIC	2200P	10%	50V
C110	CK45B1H222K	CAP. CERAMIC	2200P	10%	50V
C111	CK45B1H222K	CAP. CERAMIC	2200P	10%	50V
C112	CK45B1H222K	CAP. CERAMIC	2200P	10%	50V
C113	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C12A	CC45SL1H330J	CAP. CERAMIC	33P	5%	50V
C130	CK45B1H102K	CAP. CERAMIC	1000P	10%	50V
C150	CE04EW1C100M	CAP. ELECTRO	10	20%	16V
C151	CC45SL1H471J	CAP. CERAMIC	470P	5%	50V
C152	CE04EW1C010M	CAP. ELECTRO	1	20%	16V
C17A	CC45SL1H101J	CAP. CERAMIC	100P	5%	50V
CN2	E40-1515-05	PIN CONNECTOR	15P		
CN3	E40-1515-05	PIN CONNECTOR	15P		
CN4	E40-0915-05	PIN CONNECTOR	9P		
CN5	E40-3362-05	PIN CONNECTOR	3P		
CN6	E40-3362-05	PIN CONNECTOR	3P		
CN7	E40-3362-05	PIN CONNECTOR	3P		
CN8	NO USE				
CN9	E40-3361-05	PIN CONNECTOR	2P		
CN10	E40-3361-05	PIN CONNECTOR	2P		
CN11	E40-3363-05	PIN CONNECTOR	4P		
CN12	E40-3361-05	PIN CONNECTOR	2P		
CN13	E40-3361-05	PIN CONNECTOR	2P		
CN14	E40-3361-05	PIN CONNECTOR	2P		
CN15	NO USE				
CN16	E40-3365-05	PIN CONNECTOR	6P		
CN17	E40-3362-05	PIN CONNECTOR	3P		
D1	U05B	DIODE			
D2	U05B	DIODE			
D3	U05B	DIODE			
D4	U05B	DIODE			
D5	10D1	DIODE			
D6	10D1	DIODE			
D7	10D1	DIODE			
D8	10D1	DIODE			
D9	10D1	DIODE			
D10	10D1	DIODE			
D11	10D1	DIODE			
D12	10D1	DIODE			
D13	FC54M	DIODE			
D14	NO USE				
D15	1S1588	DIODE			
D16	1S1588	DIODE			
D17	1S1588	DIODE			
D18	1S1588	DIODE			
D19	1S1588	DIODE			
D20	1S1588	DIODE			
D21	1S1588	DIODE			
D22	1S1588	DIODE			
D23	1S1588	DIODE			
D24	HZ27-3	DIODE, ZENER	27.9V		
D25	MA700	DIODE			
D26	MA700	DIODE			
L1	L39-0540-08	COIL			
L2	L39-0536-08	COIL			
L3	NO USE				
L4	L39-0537-08	COIL			
L5	L39-0538-08	COIL			
Q2	2SC1815(Y)	TR. SI, NPN			
Q5	2SC1815(Y)	TR. SI, NPN			
Q6	2SC1815(Y)	TR. SI, NPN			
Q7	2SA1015(Y)	TR. SI, PNP			
Q8	2SA1015(Y)	TR. SI, PNP			
Q9	2SC1815(Y)	TR. SI, NPN			
Q10	2SC1815(Y)	TR. SI, NPN			
Q11	2SC1815(Y)	TR. SI, NPN			

REF.NO	PARTS NO	NAME & DESCRIPTION			
Q14	2SA1015(Y)	TR. SI, PNP			
Q15	2SA1015(Y)	TR. SI, PNP			
Q16	2SA1015(Y)	TR. SI, PNP			
Q17	2SC3419(Y)	TR. SI, NPN			
Q18	2SC1815(Y)	TR. SI, NPN			
Q19	2SA1356(Y)	TR. SI, PNP			
Q20	2SA1015(Y)	TR. SI, PNP			
Q21	2SC3419(Y)	TR. SI, NPN			
Q22	2SC1815(Y)	TR. SI, NPN			
Q23	2SA1356(Y)	TR. SI, PNP			
Q24	2SA1015(Y)	TR. SI, PNP			
Q25	2SC3419(Y)	TR. SI, NPN			
Q26	2SC1815(Y)	TR. SI, NPN			
Q27	2SA1356(Y)	TR. SI, PNP			
Q28	2SC1815(Y)	TR. SI, NPN			
Q31	2SC1815(Y)	TR. SI, NPN			
Q32	2SC1815(Y)	TR. SI, NPN			
Q35	2SA1015(Y)	TR. SI, PNP			
Q36	2SC1815(Y)	TR. SI, NPN			
Q37	2SC1815(Y)	TR. SI, NPN			
Q38	2SC1815(Y)	TR. SI, NPN			
R11	RD14BB2E472J	RES. CARBON	4.7K	5%	1/4W
R12	RD14BB2E181J	RES. CARBON	180	5%	1/4W
R30	RD14BB2E332J	RES. CARBON	3.3K	5%	1/4W
R31	RD14BB2E222J	RES. CARBON	2.2K	5%	1/4W
R32	RN14BK2E5602F	RES. METAL FILM	56K	1%	1/4W
R33	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R34	NO USE				
R35	RD14BB2E473J	RES. CARBON	47K	5%	1/4W
R36	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R37	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R38	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R39	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R40	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R41	RN14BK2E4701F	RES. METAL FILM	4.7K	1%	1/4W
R42	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R43	RN14BK2E4990F	RES. METAL FILM	499	1%	1/4W
R44	RN14BK2E1300F	RES. METAL FILM	130	1%	1/4W
R45	RN14BK2E1600F	RES. METAL FILM	160	1%	1/4W
R46	RN14BK2E36R0F	RES. METAL FILM	36.0	1%	1/4W
R47	RN14BK2E1600F	RES. METAL FILM	160	1%	1/4W
R48	RN14BK2E51R0F	RES. METAL FILM	51.0	1%	1/4W
R49	RN14BK2E1600F	RES. METAL FILM	160	1%	1/4W
R50	RN14BK2E36R0F	RES. METAL FILM	36.0	1%	1/4W
R51	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R52	RN14BK2E51R0F	RES. METAL FILM	51.0	1%	1/4W
R53	NO USE				
R54	RN14BK2E8201F	RES. METAL FILM	8.2K	1%	1/4W
R55	RN14BK2E7501F	RES. METAL FILM	7.5K	1%	1/4W
R56	RN14BK2E1501F	RES. METAL FILM	1.5K	1%	1/4W
R57	NO USE				
R58	RN14BK2E3901F	RES. METAL FILM	3.9K	1%	1/4W
R59	RN14BK2E9091F	RES. METAL FILM	9.09K	1%	1/4W
R60	NO USE				
R61	RN14BK2E4421F	RES. METAL FILM	4.42K	1%	1/4W
R62	RN14BK2E2001F	RES. METAL FILM	2K	1%	1/4W
R63	RN14BK2E8200F	RES. METAL FILM	820	1%	1/4W
R64	RN14BK2E8200F	RES. METAL FILM	820	1%	1/4W
R65	RN14BK2E8200F	RES. METAL FILM	820	1%	1/4W
R66	RN14BK2E8200F	RES. METAL FILM	820	1%	1/4W
R67	RN14BK2E8200F	RES. METAL FILM	820	1%	1/4W
R68	RN14BK2E4701F	RES. METAL FILM	4.7K	1%	1/4W
R69	RN14BK2E4701F	RES. METAL FILM	4.7K	1%	1/4W
R70	RN14BK2E4701F	RES. METAL FILM	4.7K	1%	1/4W
R71	RN14BK2E2201F	RES. METAL FILM	2.2K	1%	1/4W
R72	RN14BK2E8200F	RES. METAL FILM	820	1%	1/4W
R73	RN14BK2E4701F	RES. METAL FILM	4.7K	1%	1/4W
R90	RN14BK2E3651F	RES. METAL FILM	3.65K	1%	1/4W
R91	RN14BK2E7500F	RES. METAL FILM	750	1%	1/4W
R92	RN14BK2E4871F	RES. METAL FILM	4.87K	1%	1/4W
R93	RN14BK2E1800F	RES. METAL FILM	180	1%	1/4W
R94	RN14BK2E2672F	RES. METAL FILM	26.7K	1%	1/4W
R95	RN14BK2E1501F	RES. METAL FILM	1.5K	1%	1/4W
R96	RN14BK2E1962F	RES. METAL FILM	19.6K	1%	1/4W
R97	RN14BK2E1801F	RES. METAL FILM	1.8K	1%	1/4W
R98	RN14BK2E6801F	RES. METAL FILM	6.8K	1%	1/4W
R99	RN14BK2E9100F	RES. METAL FILM	910	1%	1/4W
R100	RN14BK2E8251F	RES. METAL FILM	8.25K	1%	1/4W
R101	RN14BK2E2801F	RES. METAL FILM	2.8K	1%	1/4W

PARTS LIST

REF.NO	PARTS NO	NAME & DESCRIPTION			
R102	RN14BK2E1962F	RES. METAL FILM	19.6K	1%	1/4W
R103	RN14BK2E3901F	RES. METAL FILM	3.9K	1%	1/4W
R104	RN14BK2E2672F	RES. METAL FILM	26.7K	1%	1/4W
R105	RN14BK2E1431F	RES. METAL FILM	1.43K	1%	1/4W
R106	RN14BK2E1212F	RES. METAL FILM	12.1K	1%	1/4W
R107	RN14BK2E3651F	RES. METAL FILM	3.65K	1%	1/4W
R112	RN14BK2E1372F	RES. METAL FILM	13.7K	1%	1/4W
R113	RN14BK2E4871F	RES. METAL FILM	4.87K	1%	1/4W
R114	RN14BK2E4872F	RES. METAL FILM	48.7K	1%	1/4W
R115	RN14BK2E4020F	RES. METAL FILM	402	1%	1/4W
R116	RN14BK2E4871F	RES. METAL FILM	4.87K	1%	1/4W
R117	RN14BK2E5600F	RES. METAL FILM	560	1%	1/4W
R118	RN14BK2E1102F	RES. METAL FILM	11K	1%	1/4W
R119	RN14BK2E2701F	RES. METAL FILM	2.7K	1%	1/4W
R120	NO USE				
R121	RN14BK2E3601F	RES. METAL FILM	3.6K	1%	1/4W
R122	RN14BK2E1132F	RES. METAL FILM	11.3K	1%	1/4W
R123	RN14BK2E4021F	RES. METAL FILM	4.02K	1%	1/4W
R124	RN14BK2E2001F	RES. METAL FILM	2K	1%	1/4W
R125	RN14BK2E4700F	RES. METAL FILM	470	1%	1/4W
R126	RD14BB2E472J	RES. CARBON	4.7K	5%	1/4W
R127	RD14BB2E472J	RES. CARBON	4.7K	5%	1/4W
R128	RN14BK2E2201F	RES. METAL FILM	2.2K	1%	1/4W
R129	RN14BK2E2201F	RES. METAL FILM	2.2K	1%	1/4W
R130	RN14BK2E4702F	RES. METAL FILM	47K	1%	1/4W
R131	RN14BK2E2201F	RES. METAL FILM	2.2K	1%	1/4W
R132	RN14BK2E2201F	RES. METAL FILM	2.2K	1%	1/4W
R133	RN14BK2E4702F	RES. METAL FILM	47K	1%	1/4W
R134	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R135	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R136	RD14BB2E222J	RES. CARBON	2.2K	5%	1/4W
R137	RD14BB2E222J	RES. CARBON	2.2K	5%	1/4W
R138	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R139	RN14BK2E2701F	RES. METAL FILM	2.7K	1%	1/4W
R140	RN14BK2E1501F	RES. METAL FILM	1.5K	1%	1/4W
R141	RN14BK2E2201F	RES. METAL FILM	2.2K	1%	1/4W
R142	RN14BK2E1501F	RES. METAL FILM	1.5K	1%	1/4W
R143	RN14BK2E2201F	RES. METAL FILM	2.2K	1%	1/4W
R144	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R145	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R146	RD14BB2E121J	RES. CARBON	120	5%	1/4W
R147	RD14BB2E332J	RES. CARBON	3.3K	5%	1/4W
R148	RD14BB2E152J	RES. CARBON	1.5K	5%	1/4W
R149	RD14BB2E101J	RES. CARBON	100	5%	1/4W
R150	RD14BB2E681J	RES. CARBON	680	5%	1/4W
R151	RD14BB2E622J	RES. CARBON	6.2K	5%	1/4W
R152	RD14BB2E682J	RES. CARBON	6.8K	5%	1/4W
R153	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R157	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R158	RD14BB2E563J	RES. CARBON	56K	5%	1/4W
R159	RD14BB2E152J	RES. CARBON	1.5K	5%	1/4W
R160	RD14BB2E101J	RES. CARBON	100	5%	1/4W
R161	RN14BK2E1331F	RES. METAL FILM	1.33K	1%	1/4W
R162	RN14BK2E6800F	RES. METAL FILM	680	1%	1/4W
R163	RD14BB2E622J	RES. CARBON	6.2K	5%	1/4W
R164	RN14BK2E6801F	RES. METAL FILM	6.8K	1%	1/4W
R165	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R166	NO USE				
R167	RD14BB2E221J	RES. CARBON	220	5%	1/4W
R171	RN14BK2E2400F	RES. METAL FILM	240	1%	1/4W
R172	RN14BK2E6800F	RES. METAL FILM	680	1%	1/4W
R173	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R174	RD14BB2E563J	RES. CARBON	56K	5%	1/4W
R175	RD14BB2E104J	RES. CARBON	100K	5%	1/4W
R176	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R177	RD14BB2E121J	RES. CARBON	120	5%	1/4W
R178	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R179	RD14BB2E223J	RES. CARBON	22K	5%	1/4W
R180	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R181	RD14BB2E472J	RES. CARBON	4.7K	5%	1/4W
R182	RN14BK2E2700F	RES. METAL FILM	270	1%	1/4W
R183	RN14BK2E8200F	RES. METAL FILM	820	1%	1/4W
R184	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R185	RD14BB2E472J	RES. CARBON	4.7K	5%	1/4W
R186	RD14BB2E101J	RES. CARBON	100	5%	1/4W
R187	RD14BB2E101J	RES. CARBON	100	5%	1/4W
R188	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R189	RD14BB2E472J	RES. CARBON	4.7K	5%	1/4W
R190	RD14BB2E101J	RES. CARBON	100	5%	1/4W
R191	RD14BB2E152J	RES. CARBON	1.5K	5%	1/4W
R192	RD14BB2E151J	RES. CARBON	150	5%	1/4W

REF.NO	PARTS NO	NAME & DESCRIPTION			
R193	RD14BB2E151J	RES. CARBON	150	5%	1/4W
R194	RD14BB2E151J	RES. CARBON	150	5%	1/4W
R195	RD14BB2E151J	RES. CARBON	150	5%	1/4W
R196	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R197	RD14BB2E472J	RES. CARBON	4.7K	5%	1/4W
R198	RD14BB2E101J	RES. CARBON	100	5%	1/4W
R199	RD14BB2E152J	RES. CARBON	1.5K	5%	1/4W
R200	RD14BB2E101J	RES. CARBON	100	5%	1/4W
R201	RD14BB2E151J	RES. CARBON	150	5%	1/4W
R202	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R203	RD14BB2E472J	RES. CARBON	4.7K	5%	1/4W
R204	RD14BB2E101J	RES. CARBON	100	5%	1/4W
R205	RD14BB2E152J	RES. CARBON	1.5K	5%	1/4W
R206	RD14BB2E151J	RES. CARBON	150	5%	1/4W
R207	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R208	RD14BB2E472J	RES. CARBON	4.7K	5%	1/4W
R209	RD14BB2E101J	RES. CARBON	100	5%	1/4W
R210	RD14BB2E152J	RES. CARBON	1.5K	5%	1/4W
R211	RD14BB2E101J	RES. CARBON	100	5%	1/4W
R212	RD14BB2E151J	RES. CARBON	150	5%	1/4W
R213	RD14BB2E151J	RES. CARBON	150	5%	1/4W
R214	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R215	RD14BB2E472J	RES. CARBON	4.7K	5%	1/4W
R216	RD14BB2E101J	RES. CARBON	100	5%	1/4W
R217	RD14BB2E152J	RES. CARBON	1.5K	5%	1/4W
R218	RD14BB2E151J	RES. CARBON	150	5%	1/4W
R219	RD14BB2E151J	RES. CARBON	150	5%	1/4W
R220	RD14BB2E223J	RES. CARBON	22K	5%	1/4W
R221	RD14BB2E473J	RES. CARBON	47K	5%	1/4W
R222	RD14BB2E102J	RES. CARBON	1K	5%	1/4W
R223	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R224	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R225	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R226	RD14BB2E103J	RES. CARBON	10K	5%	1/4W
R249	RN14BK2E9762F	RES. METAL FILM	97.6K	1%	1/4W
R250	RD14BB2E152J	RES. CARBON	1.5K	5%	1/4W
R251	RD14BB2E510J	RES. CARBON	51	5%	1/4W
R300	RD14BB2E153J	RES. CARBON	15K	5%	1/4W
RM1	R90-1116-08	RES. NETWORK	8X10K		
RM2	R90-1116-08	RES. NETWORK	8X10K		
T2	L37-0052-05	MATCHING COIL			
U1	MC7812CT	IC,POSITIVE VOLTAGE REGULATORS			
U2	MC7912CT	IC,NEGATIVE VOLTAGE REGULATORS			
U3	TA78L005P	IC,3-TERMINAL REGULATOR			
U4	CXD1217M	IC,SYNC. SIGNAL GENERATOR			
U5	TC74HC161AN	IC,SYNC. 4-BIT BINARY COUNTER			
U6	TC74HC04AN	IC,HEX INVERTER			
U7	TC74HC00AN	IC,QUAD 2-INPUT NAND GATE			
U8	TC74HC74AN	IC,DUAL D-F.F. WITH PR&CLR			
U9	TC74HC161AN	IC,SYNC. 4-BIT BINARY COUNTER			
U10	TC74HC393AN	IC,DUAL BINARY COUNTER			
U11	TC74HC393AN	IC,DUAL BINARY COUNTER			
U12	T93-0763-08	IC,PROGRAMMED ROM			
U13	NO USE				
U14	T93-0764-08	IC,PROGRAMMED ROM			
U15	HD74HC93P	IC,4-BIT BINARY COUNTER			
U16	T93-0766-08	IC,PROGRAMMED ROM			
U17	NO USE				
U18	TC74HC04AN	IC,HEX INVERTER			
U19	TC74HC123AN	IC,DUAL MONO. MULTIVIB.			
U20	TC74HC74AN	IC,DUAL D-F.F. WITH PR&CLR			
U21	T93-0765-08	IC,PROGRAMMED ROM			
U22	TC74HC32AN	IC,QUAD 2-INPUT OR GATE			
U23	TC74HC32AN	IC,QUAD 2-INPUT OR GATE			
U24	SN74LS06N	IC,HEX INVERTERS			
U25	SN74LS06N	IC,HEX INVERTERS			
U26	MC1496P	IC,BALANCED MODEM			
U27	MC1496P	IC,BALANCED MODEM			
U30	SN74LS138N	IC,3-8 DECORD./DE-MPX			
U31	SN74LS06N	IC,HEX INVERTERS			
U32	SN74LS08N	IC,QUAD 2-INPUT AND GATE			
U33	SN74LS138N	IC,3-8 DECORD./DE-MPX			
VR7	R29-3512-08	RES. SEMI FIXED 10K			
VR8	R29-5503-08	RES. SEMI FIXED 220K			
VR9	R29-5503-08	RES. SEMI FIXED 220K			
VR10	R29-1512-08	RES. SEMI FIXED 4.7K			
VR11	R29-1512-08	RES. SEMI FIXED 4.7K			
VR12	R29-1513-08	RES. SEMI FIXED 1K			

PARTS LIST

REF.NO	PARTS NO	NAME & DESCRIPTION			
VR13	R29-1514-08	RES. SEMI FIXED 3K			
VR14	R29-1512-08	RES. SEMI FIXED 4.7K			
VR15	R29-5504-08	RES. SEMI FIXED 100K			
VR16	R29-5504-08	RES. SEMI FIXED 100K			
X1	L77-1061-05	CRYSTAL RESONATOR(17.73447MHZ)			

CG-931/932 PANEL UNIT
W02-2102-08

REF.NO	PARTS NO	NAME & DESCRIPTION			
	S68-0603-08	SWITCH;S2 TO S11			
	S68-0604-08	SWITCH;S12 TO S15			
CN2	E40-1515-05	PIN CONNECTOR	15P		
CN3	E40-1515-05	PIN CONNECTOR	15P		
D1	1S1588	DIODE			
D2	1S1588	DIODE			
L1	B30-0998-08	LED,RED			
L2	B30-0998-08	LED,RED			
L3	B30-0998-08	LED,RED			
L4	B30-0998-08	LED,RED			
L5	B30-0998-08	LED,RED			
L6	B30-0998-08	LED,RED			
L7	B30-0998-08	LED,RED			
L8	B30-0999-08	LED,RED			
L9	B30-0999-08	LED,RED			
L10	B30-0999-08	LED,RED			
R1	RD14BB2E391J	RES. CARBON	390	5%	1/4W
R2	RD14BB2E391J	RES. CARBON	390	5%	1/4W
R3	RD14BB2E391J	RES. CARBON	390	5%	1/4W
R4	RD14BB2E391J	RES. CARBON	390	5%	1/4W
R5	RD14BB2E391J	RES. CARBON	390	5%	1/4W
R6	RD14BB2E391J	RES. CARBON	390	5%	1/4W
R7	RD14BB2E391J	RES. CARBON	390	5%	1/4W
R8	RD14BB2E391J	RES. CARBON	390	5%	1/4W
R9	RD14BB2E391J	RES. CARBON	390	5%	1/4W
R10	RD14BB2E391J	RES. CARBON	390	5%	1/4W
S16	S68-0605-08	SWITCH			
S17	S68-0605-08	SWITCH			
S18	S68-0605-08	SWITCH			
S19	S68-0605-08	SWITCH			
U40	SN74LS154N	IC,4 TO 16 LINE DECODER/DE-MPX			
U41	SN74LS21N	IC,DUAL 4-INPUT NAND GATE			
U42	SN74LS21N	IC,DUAL 4-INPUT NAND GATE			
U43	SN74LS21N	IC,DUAL 4-INPUT NAND GATE			

RT-62
Y87-1740-00

REF.NO	PARTS NO	NAME & DESCRIPTION
	A01-0858-03	CASE,BOTTOM
	A01-0888-03	CASE,FRONT
	A09-0507-13	COVER;REMOVABLE
	B40-2737-24	SERIAL NO. PLATE
	B42-1865-04	LABEL
	B42-1866-04	CAUTION LABEL;JAPANESE
	B42-1867-04	CAUTION LABEL;ENGLISH
	B42-1933-04	LABEL,MODEL NO.,FOR CARTON BOX
	B50-2957-10	INSTRUCTION MANUAL;JAPANESE
	B50-2958-10	INSTRUCTION MANUAL;ENGLISH
	E30-1848-05	CABLE WITH CONNECTOR
	E31-2227-05	WIRE ASS'Y;9P
	E31-2228-05	WIRE ASS'Y;8P
	E31-2230-05	WIRE ASS'Y;1P
	E31-2234-05	WIRE ASS'Y;2P
	F15-0719-04	BLIND PLATE
	F19-0706-05	HOLL CAP
	H01-2952-12	CARTON BOX
	H25-0078-04	VINYL BAG
	J02-0506-05	RUBBER FOOT
	J21-2913-04	BRACKET;FOR AC CORD BUSHING
	J31-0502-04	COLLAR;FOR P.C.B
	J32-0122-04	BOSS
	J42-0085-05	BUSHING;FOR 3-CORE AC CORD
	J42-0404-05	BUSHING;FOR P.C.B
	J59-0001-05	GROMMET
	J59-0002-05	PLUNGER
	K29-0803-04	KNOB
	N10-2030-41	NUT,HEX M3
	N30-3006-41	SCREW, PAN HD M3X6
	N34-3006-41	SCREW, TRUSS HD M3X6
	N89-3006-41	SCREW, BINDING TAPTITE 3X6
	X77-1200-00	CONTROL UNIT

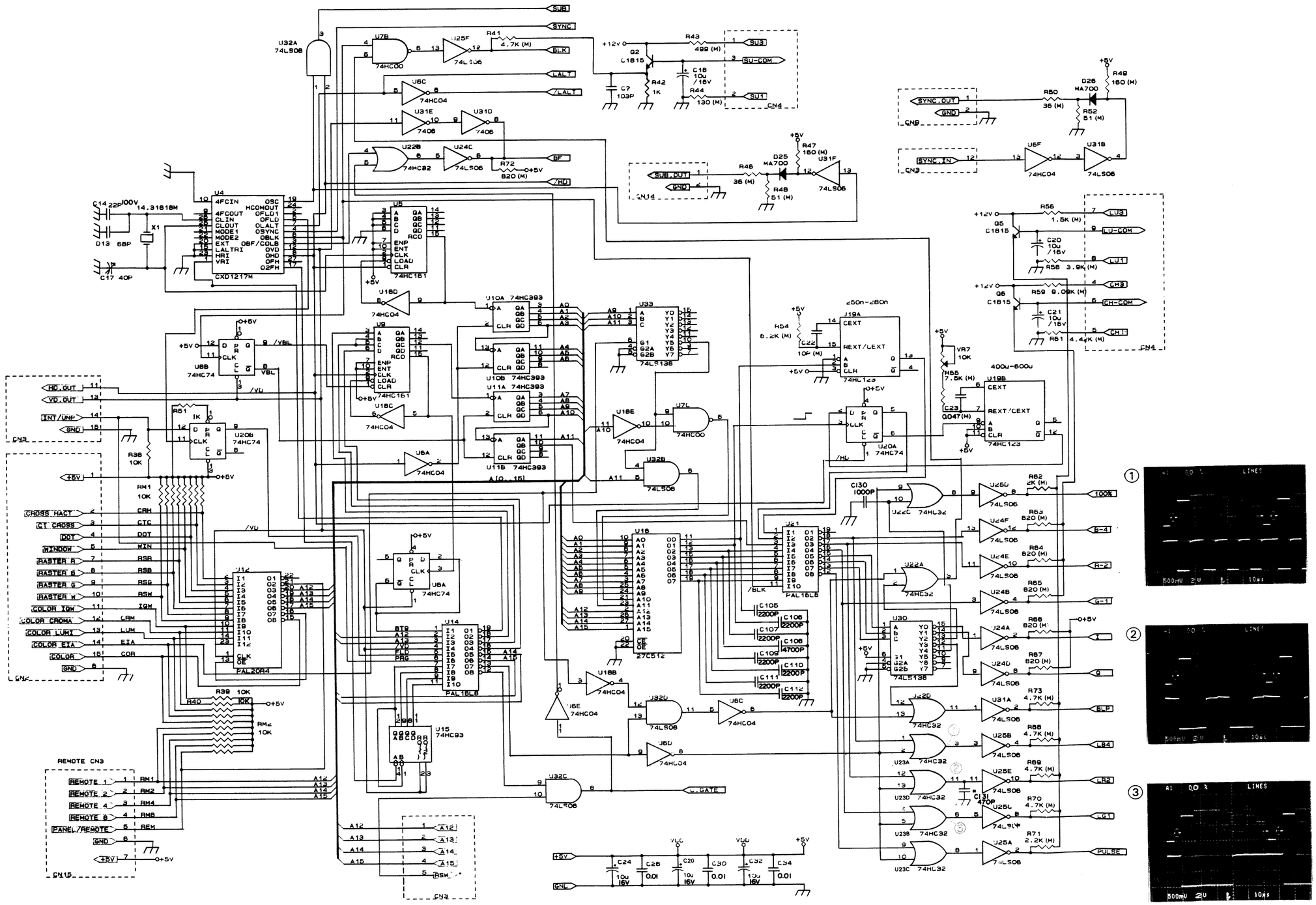
RT-62 CONTROL UNIT
X77-1200-00

REF.NO	PARTS NO	NAME & DESCRIPTION
	J25-2955-12	PCB (UNMOUNTED)
	R92-0150-05	JUMPING RES. ZERO OHM(10MM)
D1	1N60	DIODE
D2	1N60	DIODE
D3	1N60	DIODE
D4	1N60	DIODE
D5	1N60	DIODE
D6	1N60	DIODE
D7	1N60	DIODE
D8	1N60	DIODE
D9	1N60	DIODE
D10	1N60	DIODE
D11	1N60	DIODE
D12	1N60	DIODE
D13	1N60	DIODE
D14	1N60	DIODE
D15	1N60	DIODE
D16	1N60	DIODE
D17	1N60	DIODE
D18	1N60	DIODE
D19	1N60	DIODE
D20	1N60	DIODE
D21	1N60	DIODE
D22	1N60	DIODE
D23	1N60	DIODE
D24	1N60	DIODE
D25	1N60	DIODE
D26	1N60	DIODE
D27	1N60	DIODE
D28	1N60	DIODE
D29	1N60	DIODE
D30	1N60	DIODE
D31	1N60	DIODE
D32	1N60	DIODE
D33	1N60	DIODE
D34	1N60	DIODE
D35	1N60	DIODE
D36	1N60	DIODE
D37	1N60	DIODE

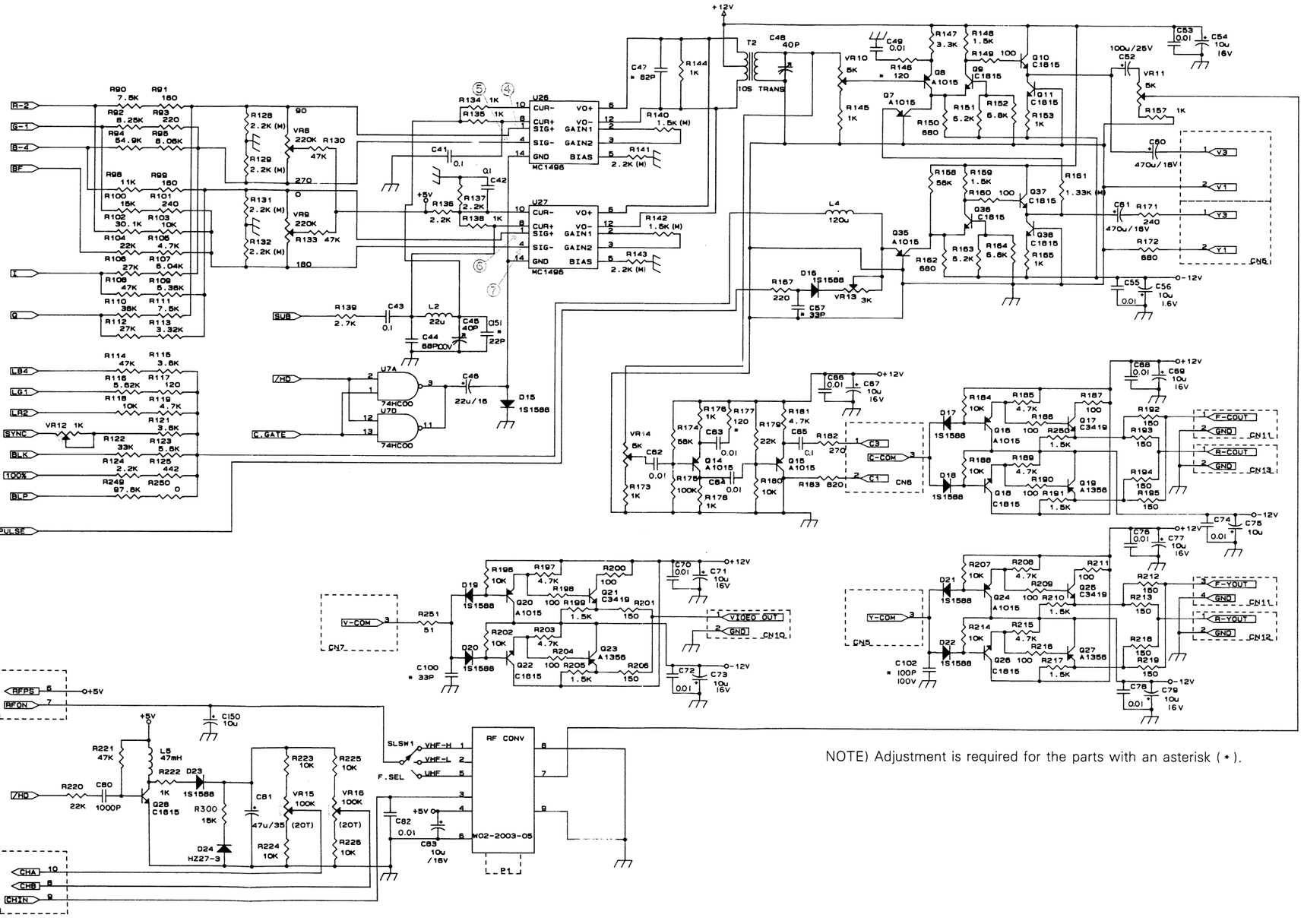
PARTS LIST

REF.NO	PARTS NO	NAME & DESCRIPTION	
D38	1N60	DIODE	
D39	1N60	DIODE	
D40	1N60	DIODE	
D41	B30-0934-05	LAMP	
D42	B30-0934-05	LAMP	
D43	B30-0934-05	LAMP	
D44	B30-0934-05	LAMP	
D45	B30-0934-05	LAMP	
D46	B30-0934-05	LAMP	
D47	B30-0934-05	LAMP	
D48	B30-0934-05	LAMP	
D49	B30-0934-05	LAMP	
D50	1N60	DIODE	
D51	1N60	DIODE	
D52	1N60	DIODE	
D53	1N60	DIODE	
D54	1N60	DIODE	
D55	1N60	DIODE	
D56	1N60	DIODE	
D57	1N60	DIODE	
D58	1N60	DIODE	
D59	1N60	DIODE	
D60	1N60	DIODE	
D61	1N60	DIODE	
D62	1N60	DIODE	
D63	1N60	DIODE	
D64	1N60	DIODE	
D65	1N60	DIODE	
D66	1N60	DIODE	
D67	1N60	DIODE	
D68	1N60	DIODE	
D69	1N60	DIODE	
D70	1N60	DIODE	
D71	1N60	DIODE	
D72	1N60	DIODE	
D73	1N60	DIODE	
D74	1N60	DIODE	
D75	1N60	DIODE	
D76	1N60	DIODE	
D77	1N60	DIODE	
D78	1N60	DIODE	
D79	1N60	DIODE	
D80	1N60	DIODE	
D81	1N60	DIODE	
D82	1N60	DIODE	
D83	1N60	DIODE	
P1	E40-0973-05	PIN CONNECTOR	9P
P2	E40-0973-05	PIN CONNECTOR	9P
P3	NO USE		
P4	E40-0311-05	PIN CONNECTOR	3P
P5	E40-0311-05	PIN CONNECTOR	3P
P6	E40-0864-05	PIN CONNECTOR	8P
P7	E40-0864-05	PIN CONNECTOR	8P
P10	E40-0973-05	PIN CONNECTOR	9P
P11	E40-0974-05	PIN CONNECTOR	9P
P12	E40-0873-05	PIN CONNECTOR	8P
P13	E40-0874-05	PIN CONNECTOR	8P
P101	E40-0811-05	PIN CONNECTOR	8P
P102	E40-0811-05	PIN CONNECTOR	8P
P103	E40-0811-05	PIN CONNECTOR	8P
P104	E40-0811-05	PIN CONNECTOR	8P
P105	E40-0811-05	PIN CONNECTOR	8P
P106	E40-0811-05	PIN CONNECTOR	8P
P107	E40-0811-05	PIN CONNECTOR	8P
P108	E40-0811-05	PIN CONNECTOR	8P
P109	E40-0811-05	PIN CONNECTOR	8P
P110	E40-0811-05	PIN CONNECTOR	8P
P111	E40-0811-05	PIN CONNECTOR	8P
P112	E40-0811-05	PIN CONNECTOR	8P
P113	E40-0811-05	PIN CONNECTOR	8P
P114	E40-0811-05	PIN CONNECTOR	8P
P115	E40-0811-05	PIN CONNECTOR	8P
P116	E40-0811-05	PIN CONNECTOR	8P
P201	E40-0811-05	PIN CONNECTOR	8P
P202	E40-0811-05	PIN CONNECTOR	8P
P203	E40-0811-05	PIN CONNECTOR	8P
P204	E40-0811-05	PIN CONNECTOR	8P
P205	E40-0811-05	PIN CONNECTOR	8P
P206	E40-0811-05	PIN CONNECTOR	8P
P207	E40-0811-05	PIN CONNECTOR	8P
P208	E40-0811-05	PIN CONNECTOR	8P
P209	E40-0811-05	PIN CONNECTOR	8P
P210	E40-0811-05	PIN CONNECTOR	8P
P211	E40-0811-05	PIN CONNECTOR	8P
P212	E40-0811-05	PIN CONNECTOR	8P
P213	E40-0811-05	PIN CONNECTOR	8P
P214	E40-0811-05	PIN CONNECTOR	8P
P215	E40-0811-05	PIN CONNECTOR	8P
P216	E40-0811-05	PIN CONNECTOR	8P
R1	RD14BB2E681J	RES. CARBON	680 5% 1/4W
S1	S42-8501-05	PUSH SWITCH	
S2	S33-4502-05	LEVER SWITCH	

CG-931 SCHEMATIC DIAGRAM

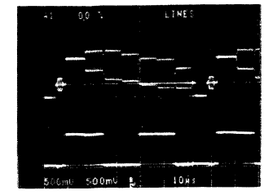

SUB
SYNC
BLK
/ALT
GF
/HD
/VD
HD.OUT
VD.OUT
INT/UNP
GND
CN3
CROSS HACT
CT CROSS
DOT
WINDOW
RASTER R
RASTER B
RASTER G
RASTER W
COLOR YGW
COLOR CROMA
COLOR LUM
COLOR EIA
COLOR
CN5
REMOTE CN3
REMOTE 1
REMOTE 2
REMOTE 4
REMOTE 8
PANEL/REMOTE
CN15
SUB.OUT
SYNC.OUT
SYNC.IN
CN4
SU3
SU-COM
SU1
LU3
LU-COM
LU1
CH3
CH-COM
CH1
100%
B-Y
R-Y
G-Y
Y
Q
BLP
LB4
LR2
LG1
PULSE
W.GATE
A[0..15]
CN2
+5V
+12V
GND
VCC
VDD
CXD1217M
PAL20H4
PAL18L8
PAL16L8
27C512
74HC161
74HC393
74LS138
74HC123
74HC74
74HC32
74LS06
74HC04
74HC00
74LS08
74HC93
74HC157
74HC283
74HC86
74HC244
74HC373
74HC541
74HC245
74HC273
74HC139
74HC08
74HC02
74HC14
74HC21
74HC30
74HC240
74HC374
74HC573
74HC688
74HC4040
74HC4538
74HC4066
74HC4053
74HC4051
74HC4052
74HC4316
74HC4017
74HC4020
74HC4024
74HC4060
74HC4075
74HC4078
74HC4094
74HC4511
74HC4543
74HC4538
74HC4584
74HC4585
74HC4538
74HC4584
74HC4585
74HC4538
74HC4584
74HC4585

CG-931 SCHEMATIC DIAGRAM

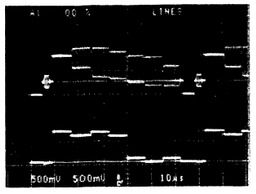


NOTE) Adjustment is required for the parts with an asterisk (*).

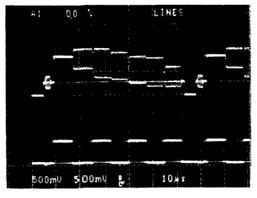
④



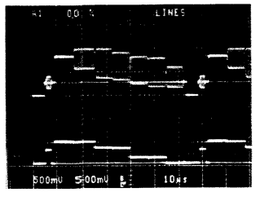
⑤



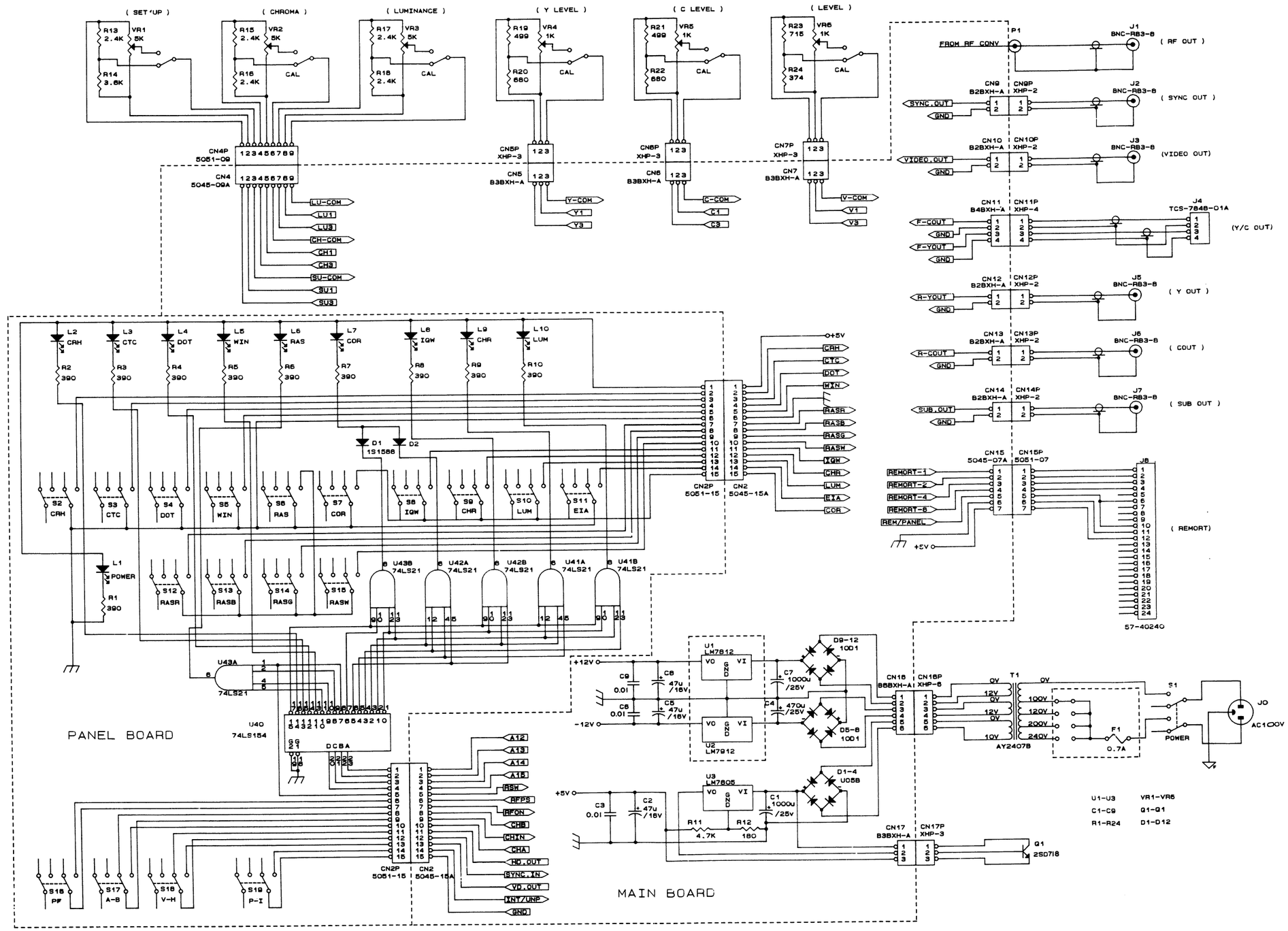
⑥



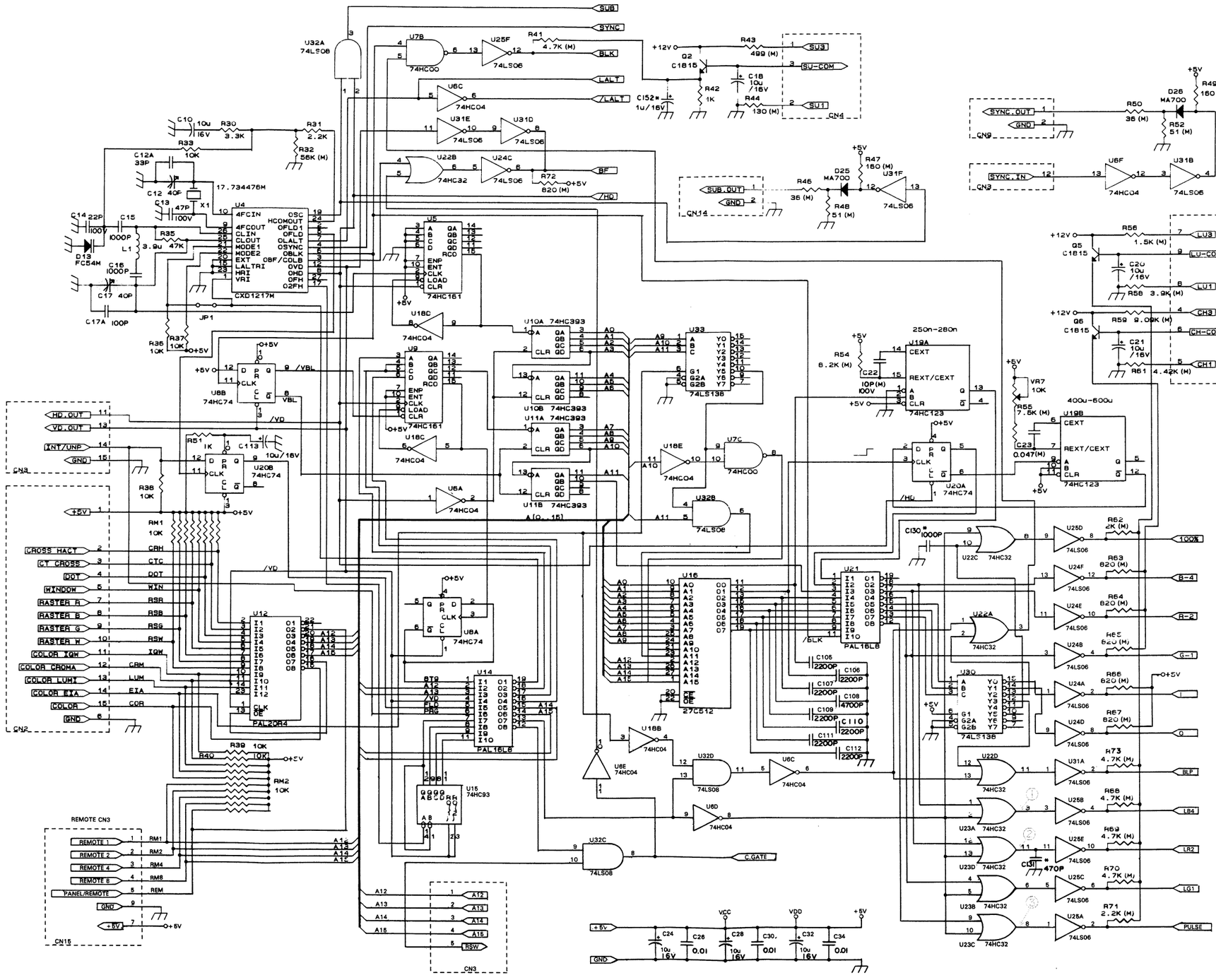
⑦



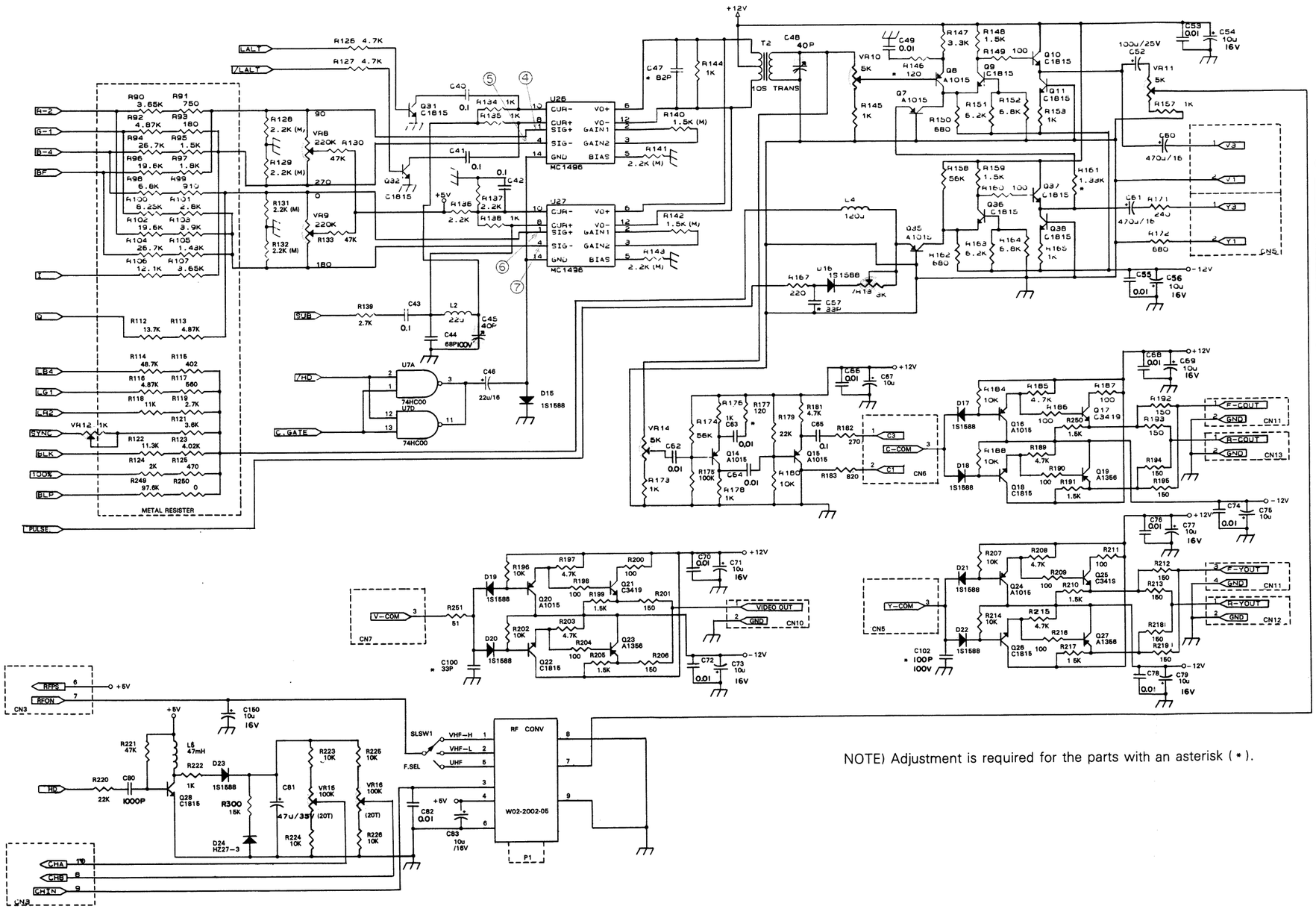
CG-931 SCHEMATIC DIAGRAM



CG-932 SCHEMATIC DIAGRAM

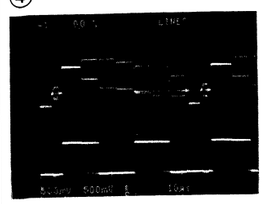

SUB
SYNC
BLK
/ALT
ALT
BF
/HD
SU3
SU-COM
SU1
CN4
SUB.OUT
GND
CN14
SYNC.OUT
SYNC.IN
CN9
LU3
LU-COM
LU1
CH3
CH-COM
CH1
HD.OUT
VD.OUT
INT/UNP
GND
CN8
CROSS HACT
CT CROSS
DOT
WINDOW
RASTER R
RASTER B
RASTER G
RASTER W
COLOR IQW
COLOR CHROMA
COLOR LUMI
COLOR EXA
COLOR
CN2
REMOTE CN3
REMOTE 1
REMOTE 2
REMOTE 4
REMOTE 8
PANEL/REMOTE
REM
CN15
4FCIN
CXD1217M
17.734476M
PAL20L4
PAL16L8
27C512
74HC161
74HC393
74LS138
74HC123
74HC74
74HC04
74HC32
74LS08
74LS06
74HC00
74HC393
74HC393
74HC393

CG-932 SCHEMATIC DIAGRAM

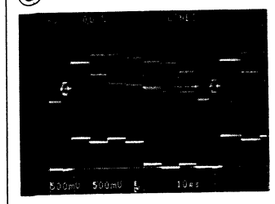


NOTE) Adjustment is required for the parts with an asterisk (*).

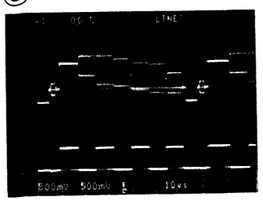
④



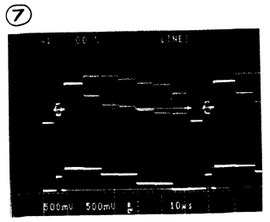
⑤



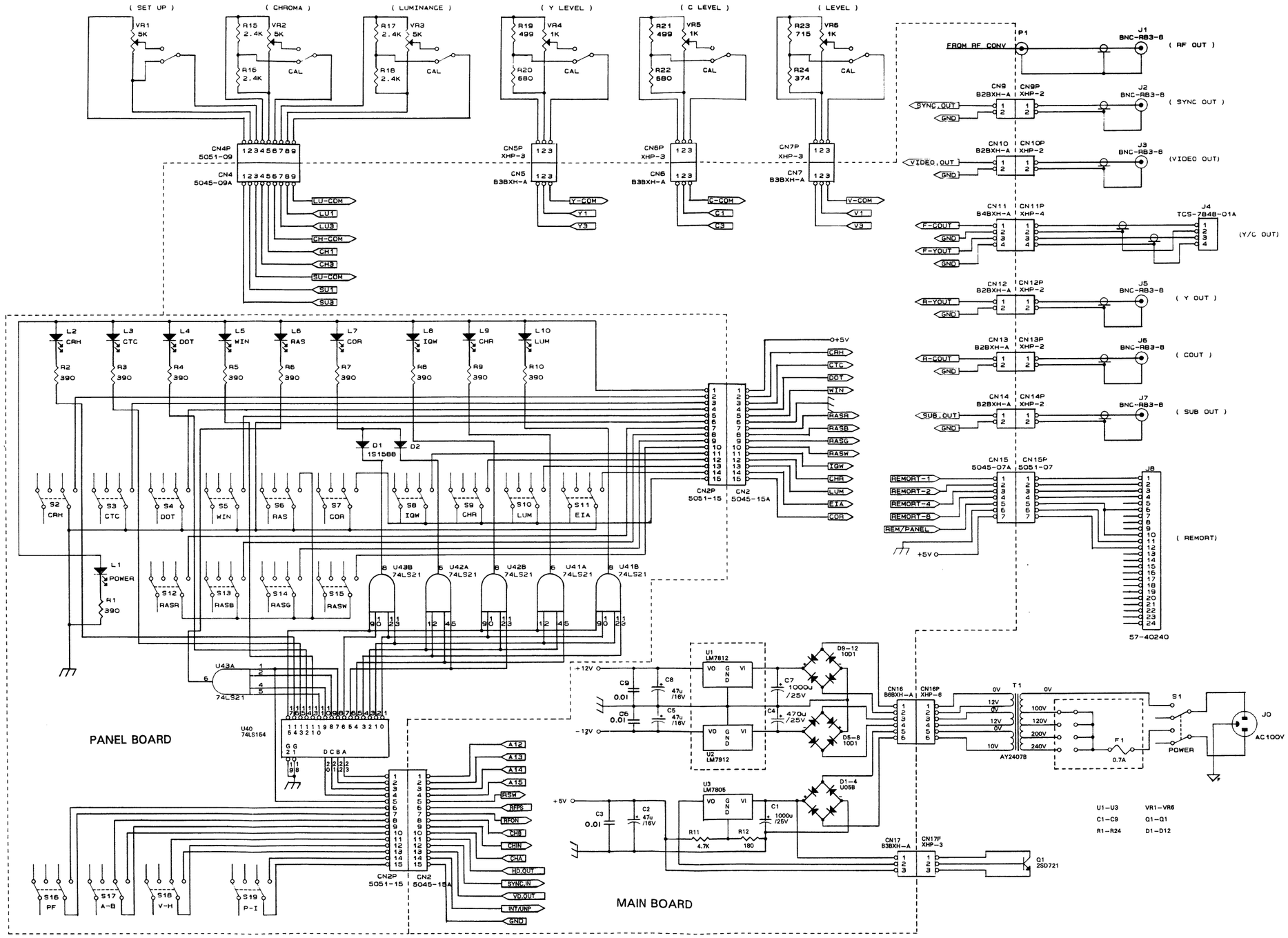
⑥



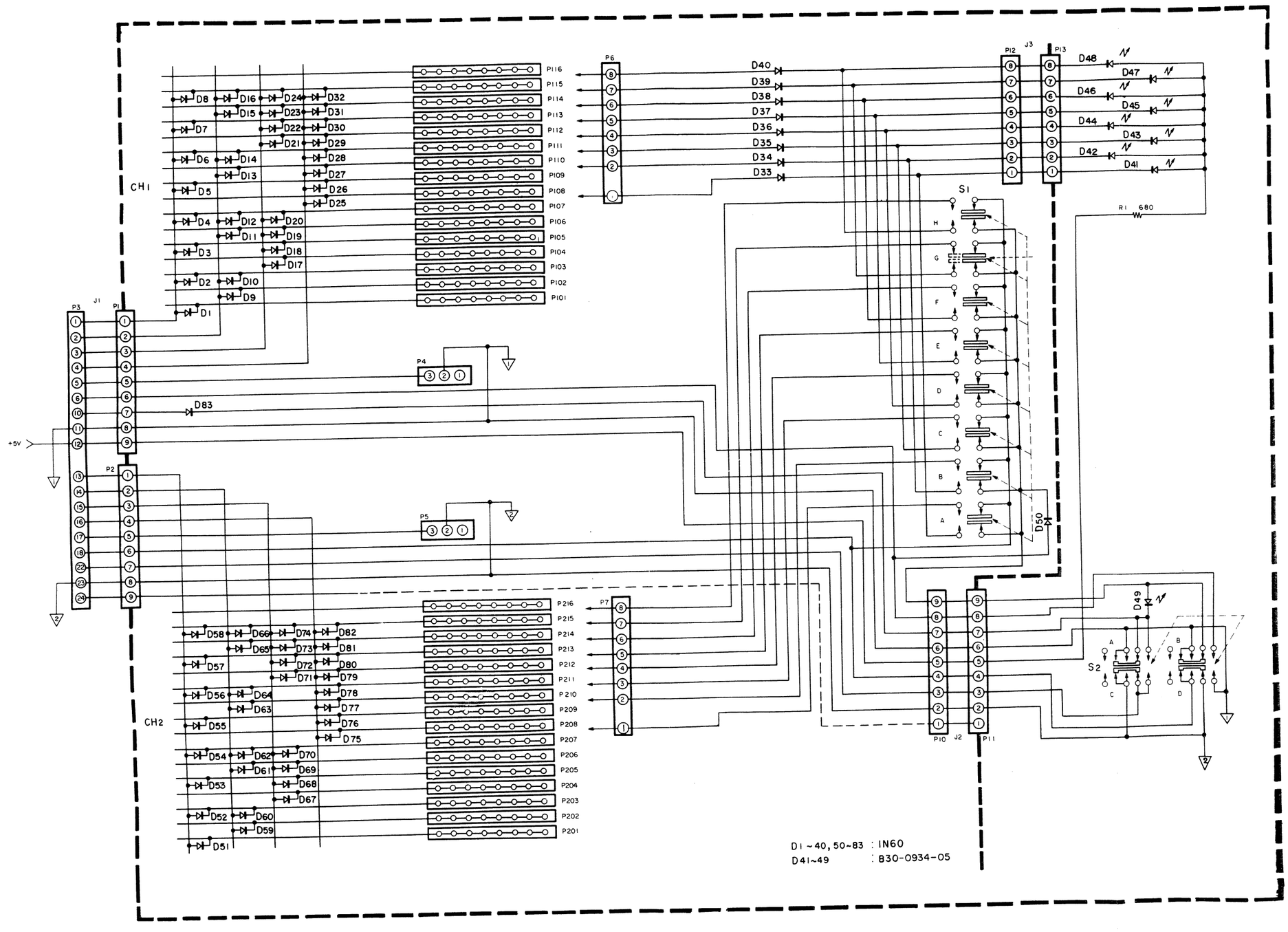
⑦



CG-932 SCHEMATIC DIAGRAM

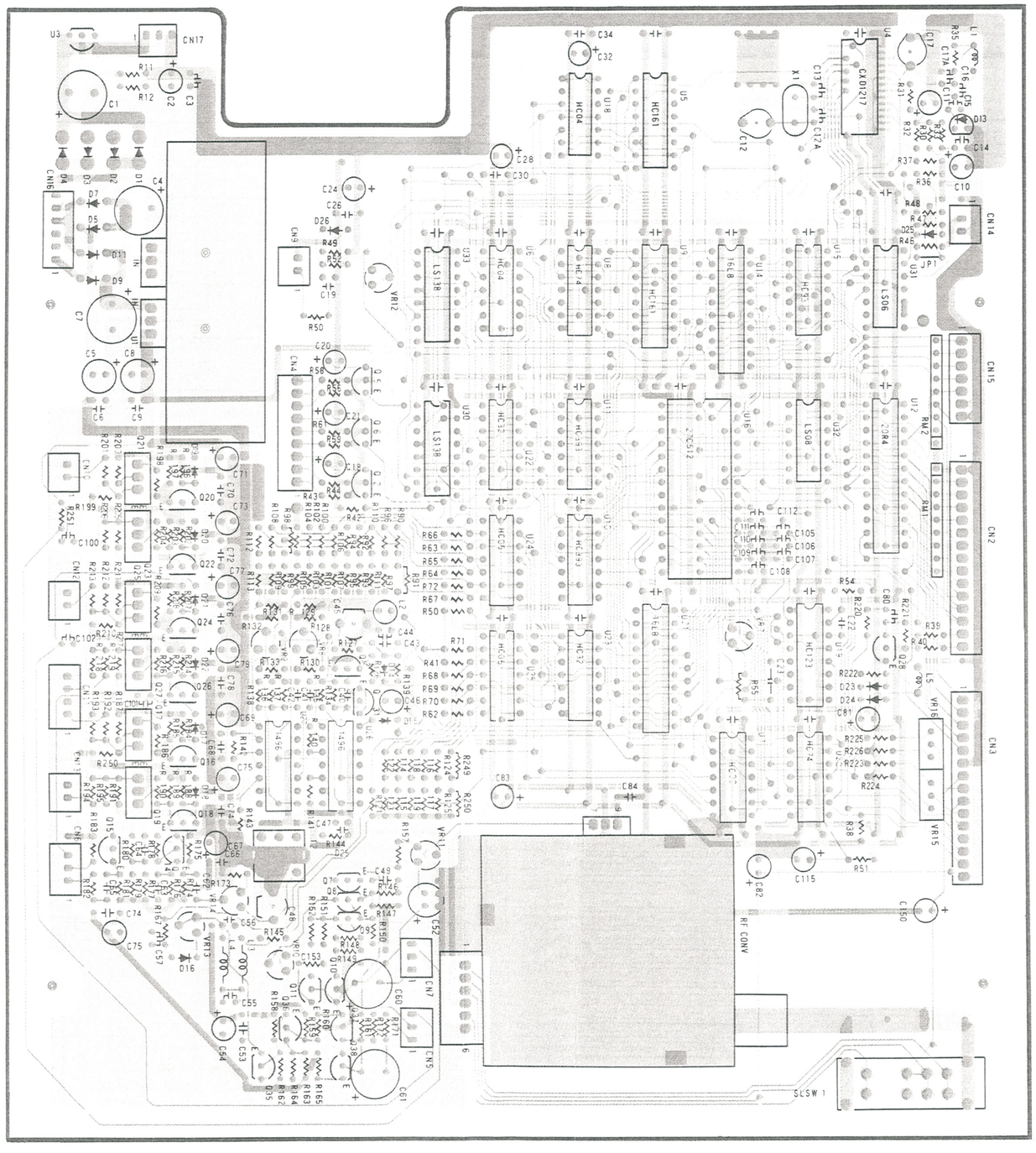


RT-62 SCHEMATIC DIAGRAM



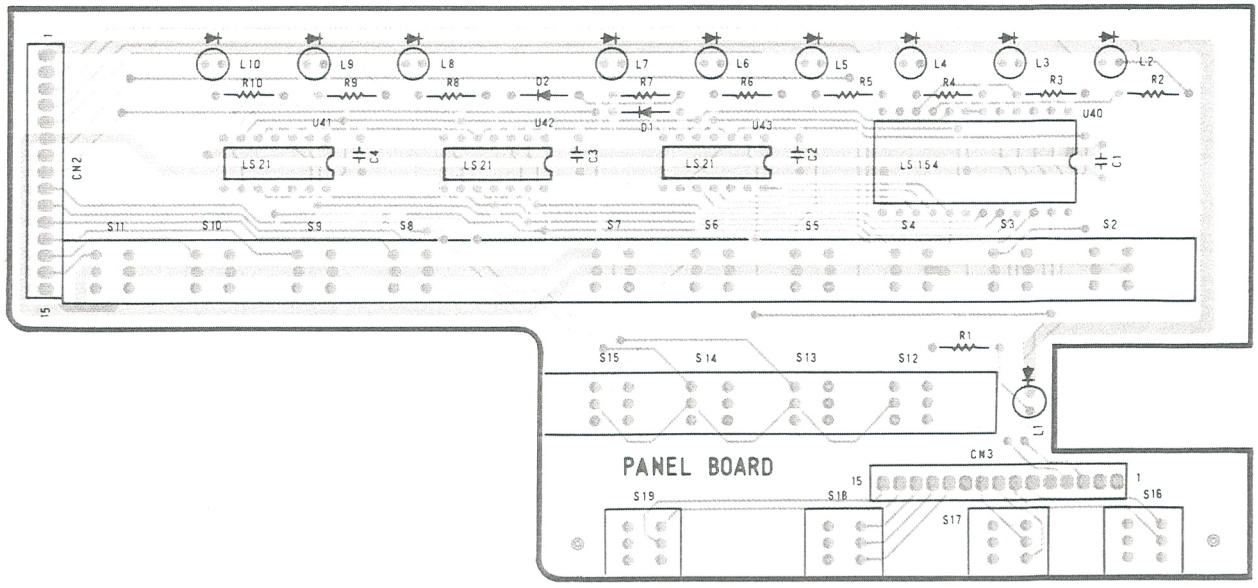
P.C. BOARD

PANEL UNIT



PANEL UNIT

Pattern side vew



RT-62 CONTROL UNIT